

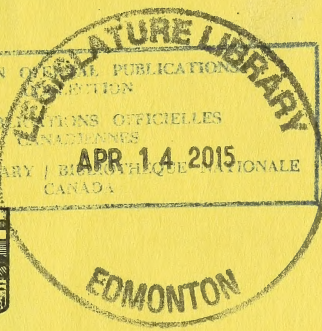
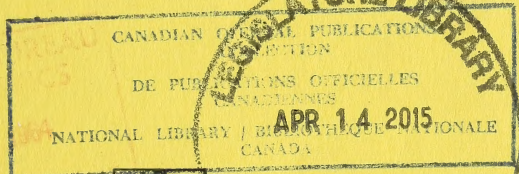
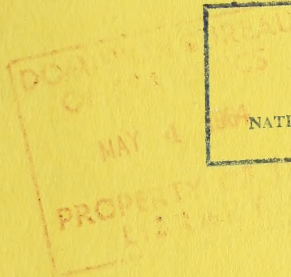
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**ANNUAL REPORT**  
OF THE  
**Department of Lands and Forests**  
OF THE  
**PROVINCE OF ALBERTA**  
FOR THE  
**FISCAL YEAR ENDED MARCH 31st**  
**1962**



EDMONTON:  
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**1962**



EDMONTON:  
PRINTED BY L. S. WALL, QUEEN'S PRINTER





TO THE HONOURABLE J. PERCY PAGE,  
*Lieutenant-Governor of the Province of Alberta.*

SIR:

I have the honour to submit the Report of the  
Department of Lands and Forests for the fiscal year  
ended March 31st, 1962.

I have the honour, to be, Sir,

Your obedient servant,  
NORMAN WILLMORE,  
*Minister of Lands and Forests.*

Edmonton, November 23rd, 1962.



## TABLE OF CONTENTS

I - LANDS ADMINISTRATION	10
Report of the Public and School Lands Division	
II - FORESTRY ADMINISTRATION	29
Report of the Director of Forestry	
III - FISH AND WILDLIFE DIVISION	74
Report of the Director of Fish and Wildlife	
IV - TECHNICAL DIVISION	107
Report of the Director of the Technical Division	
V - ACCOUNTS ADMINISTRATION	123
Report of the Accountant	
VI - REGISTRATION DIVISION	136
Report of the Registrar	
VII - PROVINCIAL PARKS	141
Report of the Provincial Parks Commissioner	
VIII - PERSONNEL	153
IX - STATIONERY AND SUPPLIES	156





## CHIEF OFFICERS

### DEPARTMENT OF LANDS AND FORESTS

Hon. Norman Willmore	Minister of Lands & Forests
H. G. Jensen	Deputy Minister of Lands & Forests
W. D. Abercrombie	Departmental Solicitor
V. A. Wood	Director of Lands
E. P. Shaver	Asst. Director of Lands
E. S. Huestis	Director of Forestry
R. D. Loomis	Supt. of Forest Management
T. R. Hammer	Supt. of Forest Protection
R. G. Steele	Supt. of Forest Surveys
A. Earnshaw	Radio Superintendent
E. P. Shaver	Provincial Parks Commissioner
C. H. Harvie	Supt. of Provincial Parks
Curt P. Smith	Director of Fish and Wildlife
W. C. Hales	Superintendent of Game
M. J. Paetz	Chief Fishery Biologist
H. Soley	Director, Technical Division
T. A. Drinkwater	Asst. Director, Technical Division
A. McCallum	Administrative Accountant
H. E. Bennett	Asst. Administrative Accountant
C. B. Kenway	Registrar
W. H. MacDonald	Publicity Officer
A. C. Baker	Personnel Officer
Miss M. Garrick	Stationery and Supplies

### EASTERN ROCKIES FOREST CONSERVATION BOARD

J. R. H. Hall	Chairman
A. T. Baker	Member



**REPORT**  
OF THE  
**Department of Lands and Forests**  
1961 - 1962

HONOURABLE NORMAN WILLMORE,  
Minister of Lands and Forests,  
Edmonton, Alberta.

SIR:

I have the honour to submit the annual report of the Department of Lands and Forests for the fiscal year ending March 31st, 1962.

Respectfully submitted,

H. G. JENSEN,  
Deputy Minister.

Edmonton, November 23rd, 1962.

## PUBLIC AND SCHOOL LANDS ADMINISTRATION

Report of the Director of Lands

V. A. WOOD

In the fiscal year under review there were 117,636 items of outgoing mail from this division as compared to 112,225 items for the previous fiscal year or an increase of 4 1/2%.

During the fall of 1961 and the spring of 1962 there was increased interest by the general public in acquiring public lands for settlement and for grazing. The demand for community pastures and for grazing lands in general has been on the increase for the past several years in southern Alberta and this increased demand now extends to the northern areas of the province.

In the fall of 1961 new Agricultural and Tree Farm Sale Regulations were introduced which will permit small established farmers to buy privately adjoining quarters of available public lands under the terms and conditions as set out in the regulations.

The Director and Supervisor of Soil Classification attended the Western Land Directors' Conference which was held in Manitoba in September, 1961. The conference consisted of the presentation of papers of various phases of public land administration and the inspection of several of the land development projects in the province of Manitoba. At the conclusion of the conference several comments were made regarding the administration of public lands which were referred to the Minister and the Deputy Minister of the Department.

In October the Director and Assistant Director of Lands attended the Resources for Tomorrow Conference which was held in Montreal. Many problems relating to the administration of public lands were discussed. There was general agreement that in the administration of the natural resources more and more attention should be given to the multiple use and conservation of the resources concerned.

After several years of discussion and negotiation between the federal government and the provincial governments of Alberta, Saskatchewan and Manitoba, agreement was reached that the Natural Resources Transfer Agreements would be amended to permit the respective provinces to administer school lands in the same manner as other public lands. Accordingly in Alberta The Public Lands Act is being amended whereby former school lands will be administered in the same manner as other public lands.

The assistance and cooperation of all the staff of the Lands Division is most sincerely appreciated. The past year has been a busy one and in many cases members of the staff have willingly put forth extra effort and extra hours in order to keep the work up-to-date.

### ORDERS - IN - COUNCIL:

A number of Orders-in-Council were passed during the fiscal year but only the following affected the policy and procedure of the Lands Division.



O.C. 721/61, May 9th, 1961 - rescinded O.C. 496/49 to provide for the acceptance of applications for a Cultivation Lease from persons who have resided in the Province for an aggregate total of one year in the three years immediately prior to making application.

O.C. 1590/61, October 17th, 1961 - established new Agricultural and Tree Farm Sale Regulations.

O.C. 1822/61, November 24th, 1961 - established new Public Lands Miscellaneous Lease Regulations.

O.C. 384/62, March 21st, 1962 - amended the Homestead Lease Loan regulations to provide where a cancelled Homestead Lease is reinstated under an Order-in-Council, the cancelled Homestead Lease Loan contract shall be deemed to be reinstated on the date of the reinstatement of the lease.

#### HOMESTEAD LEASES AND HOMESTEAD SALES:

The increased interest in homesteading, which appeared to commence about mid-summer, 1961, resulted in a total of 1,371 homestead lease and homestead sale applications being received during the present fiscal year.

The increase appears due in part to the scarcity of land and the current drought in Southern Alberta. Other factors appear to be the desire of many persons living in small towns or villages to acquire land under homestead sale and the fact that the highway program of the Province has made many areas more accessible.

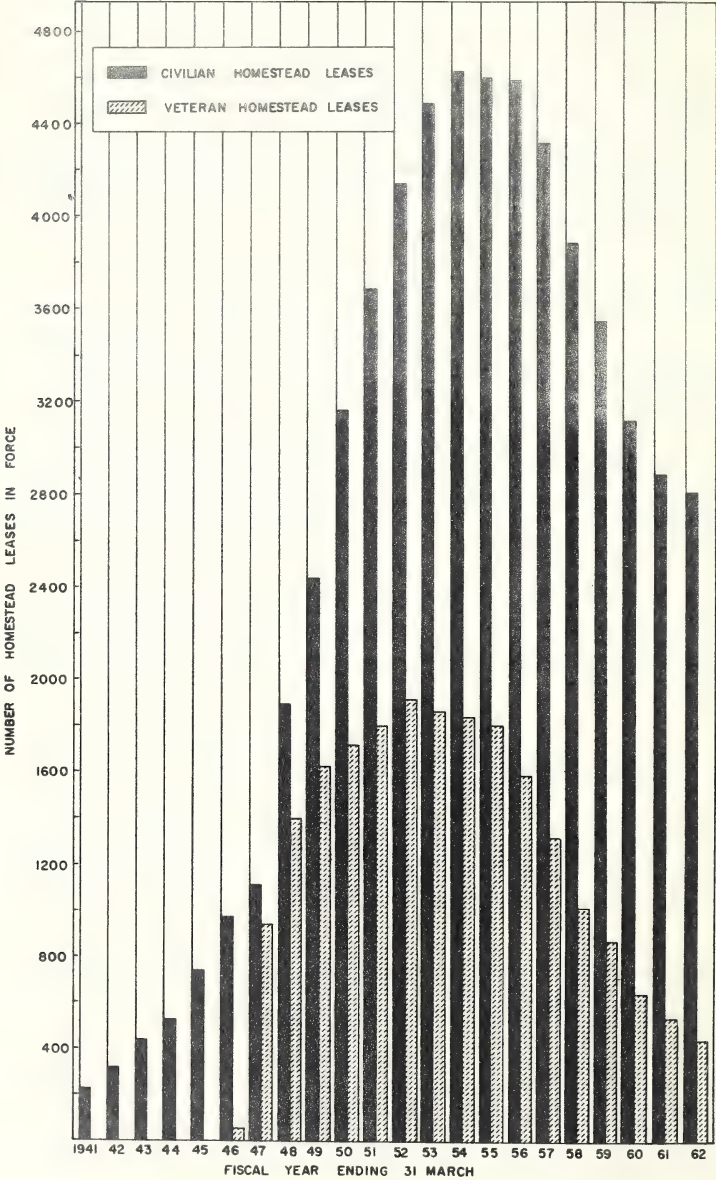
There is every indication that legislation will be passed abolishing school land. If former school lands are then made available for homesteading, it is anticipated that there will be greater demand for homestead land during the next fiscal year than there has been since the end of World War II.

The newly surveyed townships in the Fort Vermilion area were opened for settlement in January, 1962, and 95 persons made application for 165 quarter-sections in one day.

The number of leases and sales issued this year has exceeded the number cancelled or patented with a resultant increase of approximately 200 more leases and sales in effect at the end of the current fiscal year than were in effect on April 1st, 1961.

Crops in 1961 in the central and northern portions of the Province, where most homesteads are located, were on the whole much better than for several years previous. This has resulted in better collection of crop share and homestead lease loan accounts.

The introduction of Homestead Lease Loan Sales appears to be well received by homestead lessees as it provides means for them to operate their land and pay taxes instead of a share of the crop until such time as the homestead lease loan indebtedness is paid in full and notification of title can be issued. The department granted 51 of this new type of sale during the fiscal year.



The granting of a greater number of leases and sales has also meant a small increase in homestead lease loan applications. Repayment of existing loan accounts is providing sufficient funds to keep the Homestead Lease Loan Revolving Fund operating successfully.

#### SALES AND CULTIVATION LEASES:

During the fiscal year, a total of 329 parcels of land were offered for sale by public auction of which 281 were sold. This is a decrease from the previous year due in part to withholding many parcels from auction sale in view of the new Agricultural and Tree Farm Sale regulations.

The highest price received per acre was \$110.00 for a parcel of land sold at Edmonton. The average price per acre received was \$16.84.

During the fiscal year the administration and control of 86 parcels of land were transferred from this department to other government departments, or agencies.

Listed hereunder for comparison are breakdowns covering Sales, Cultivation Leases and Accrued Area Leases for the years 1960-61 and 1961-62.

#### SALES

YEAR	NEW	CANCELLED	PATENTED	IN FORCE
1960-61	486	14	502	2,154
1961-62	396	26	521	2,003

#### CULTIVATION LEASES:

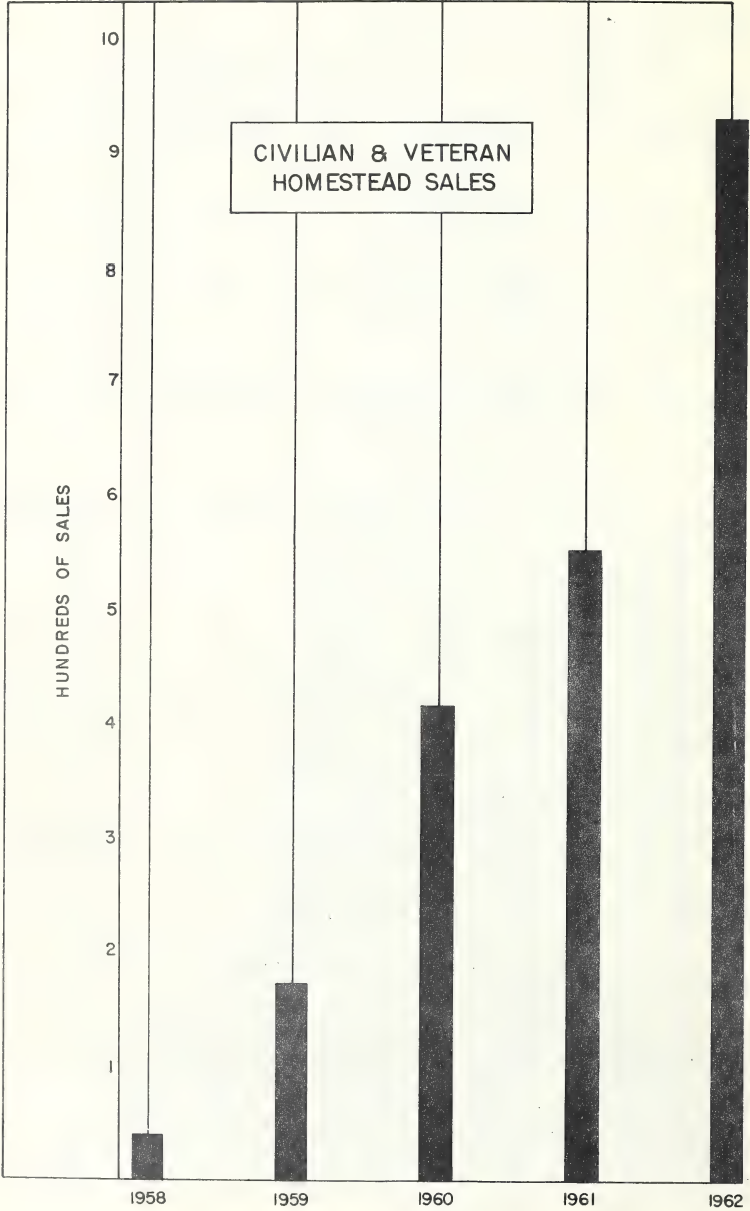
YEAR	NEW	CANCELLED	IN FORCE
1960-61	284	387	1,413
1961-62	169	205	1,377

#### ACCRUED AREA LEASES:

YEAR	NEW	CANCELLED	IN FORCE
1960-61	5	70	576
1961-62	-	165	411

Due to the recognition of riparian rights, accrued area leases are no longer being issued.

Towards the end of the calendar year 1961, regulations were enacted permitting the disposition of land, by sale, under Agricultural and Tree Farm Sale Regulations. These regulations were for the purpose of enabling a farmer, already established on land, to increase his holdings to some extent by means of a private purchase. The response from the public to this type of disposition has been good and from the end of November, 1961, to the very first of March, 1962, 134 applications have been recorded although some 220 had actually been received but were not all necessarily acceptable.





A total of 128 cultivation permits were issued during the fiscal year, mainly on a cash rental basis, covering both cultivation and grazing privileges.

The following table indicates the monies collected during the year from public and school land sales.

#### SCHOOL LAND SALES

Amount collected on new sales - \$83,692.32 (including \$799.54 interest)  
Total revenue collected on account of principal - \$391,730.86  
Total revenue collected on account of interest - \$ 54,543.63.

#### PUBLIC LAND SALES

Amount collected on new sales - \$82,861.38 (including \$632.65 interest)  
Total revenue collected on account of principal - \$187,509.71  
Total revenue collected on account of interest - \$ 13,046.93.

#### TAX RECOVERY SALES

Amount collected on new sales - \$89,830.77 (including \$433.65 interest)  
Total revenue collected on account of principal - \$90,738.59  
Total revenue collected on account of interest - \$ 1,895.08.

Exclusive of the clearing project areas the Crown has a total of \$2,733,988.00 worth of assessed land under cultivation lease and under authority of Section 5 of The Crown Cultivation Leases Act the department paid out \$129,560.67 in lieu of taxes.



FOREST CLEARING FOR PETROLEUM PRODUCTION.

## SPECIAL LAND USE:

The past year saw a continuing demand for public land as sites for petroleum and natural gas wells, production batteries and for rights of way for roads and pipelines. As a direct result of this activity, the Special Land Use Group also dealt with a large number of applications for temporary camp sites, airstrips and commercial or industrial sites as well as power line easements and sand and gravel leases. Much greater control is now being exercised over the clearing of sites and rights of way and the proper utilization of public land especially in the timbered area of the Province where Forestry personnel have been assigned to assist and guide companies or individuals who are acquiring interests in public lands.

The assessment of the recreational and summer cottage potential of lake shore lands is continuing and although good progress has been made there are still many inspections and reports to be made before development programs can be outlined for specific areas.

Only one new summer cottage subdivision, at Lower Kananaskis Lake in the Eastern Rockies Forest Conservation Area, was opened up this past year and leases were issued on all of the lots. At several of the existing summer cottage subdivisions and highway commercial subdivisions, leases were cancelled due to default by the lessees and these lots have been readvertised and disposed of.

Miscellaneous Permits issued - 924  
Sand and Gravel Permits issued - 48

Trappers Cabin Permits have been discontinued and are provided for in the Miscellaneous Permit regulations. The 48 Sand and Gravel Permits covered a total of 56,365 cubic yards.

## GRAZING:

During 1961 the demand for grazing privileges on Crown land in Southern, Central and the Peace River block of Northern Alberta, by way of grazing lease and grazing permit remained at a record level, the number of assignments processed through this office covering leases already in effect indicated the demand for grazing land. Applications for leases and permits, on available Crown land in Central and Northern Alberta showed the movement of Southern Alberta and Saskatchewan Ranchers to this section of our Province. The increase in applications for long term leases and the fact that most of the assignments of leases required investigation for the establishing of the assignment fee resulted in a very busy year for the inspection staff.

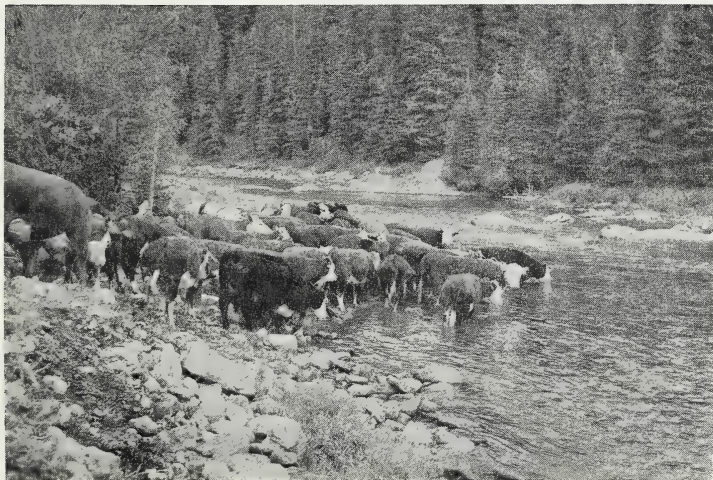
In 1961 due to the scarcity of the better types of grazing land in the settlement areas of the Province, permission was granted in some areas to allow the issue of Grazing Leases in portions of the green area (non-settlement area) for the grazing of cattle. By arrangements with the Forestry Branch, the inspections within the green area were carried out as joint inspections with the District Forest Officer. This was considered advisable so that the local forest officer could exercise better control over the situation and see that only responsible applicants were allowed grazing privileges in the green area.

Much of the time spent in field work in 1961 was taken up with the establishment of the valuation of lands and improvements given under the assignment or transfer of Grazing Leases under the Grazing Lease Assignment regulations.

The annual meetings of Provincial Grazing Reserve Associations and Community Pasture Associations were attended by departmental representatives throughout the winter. Attendance at these individual community pasture annual meetings gives these associations the benefit of the information collected as to how other pastures operate and meet their difficulties.

In February, 1961, a meeting was called at Medicine Hat attended by officers of all community pastures in the Medicine Hat district. Information dealing with the many problems involved in community pasture operation were discussed and tabulated and a copy sent to each community pasture secretary so that all could benefit from the experience of others. This meeting was considered very successful and indications are that it will become an annual event.

Due to the non-availability of additional grazing land in Southern and Central Alberta it has become more and more apparent to grazing lease holders and the inspection staff of this Department that maximum production from grazing lands must be secured by the use of proper range management practice and improved forage crops. Recommendations have been made by reference to the results of experimental work as a means of increasing forage production.



As in previous years observations have been made to check the introduction and spread of poisonous and noxious plants which might prove detrimental to the grazing resources of the province. As yet certain harmful plants which have invaded the State of Montana, to the south, and British Columbia to the west, have not appeared in this Province.

The increase in grazing reserve activity throughout the province in 1961 led to the appointment of two Grazing Reserve Supervisors, S. G. Klumph was appointed Supervisor of Central and Northern Alberta Grazing Reserves and H. W. Thiessen, Supervisor of Southern Alberta Grazing Reserves and Irrigated Pastures. These men are responsible for the operation and management of Provincial Grazing Reserves of which we have six at the present time, at Minburn, Two Hills, and Wanhams in central and northern Alberta and Twin River, Pinhorn and Purple Springs in southern Alberta, the latter being as irrigated pasture.

The establishment of a provincially operated grazing reserve in a district takes care of the needs of the small farmer and rancher and stabilizes his operation.

The number of requests submitted to the Department of Agriculture by Municipalities, Counties and Improvement Districts, for the development of additional reserves, indicates the increase which can be expected in these operations. As well during 1961 we dealt with and issued seven Grazing Association Leases and had an additional ten on hand for 1962 inspections.

The drought which affected the south-eastern portion of the province during 1961, resulted in a record number of assistance applications for construction of stock watering projects under the Range Improvement Program. Fifty-three applications were received and dealt with during the period mentioned.

During 1961, six wild horse round-ups were in effect. The total number of horses reported as having been rounded up and cleared for sale was only twenty-six.

The average price of beef sold on the Calgary market during the period of July 31st to December 31st, 1961, was 19.56¢ per lb. as compared to 18.31¢ per lb. for the same period of 1960. The following table shows the percentage of forage value which was used for calculating rental and taxes at the varying prices:

AVERAGE PRICE OF BEEF	PERCENTAGE OF FORAGE VALUE		
	PAYABLE AS RENTAL AND TAXES		
	Districts		
	South "A"	Central "B"	North "C"
10.99¢ per lb. and under	12 1/2%	10%	8%
11.00¢ - 15.99¢ per lb.	16 2/3%	12 1/2%	10%
16.00 - 20.99¢ per lb.	20%	16 2/3%	12 1/2%
21.00¢ - 25.99¢ per lb.	25%	20%	16 2/3%
26.00¢ per lb. and over	30%	25%	20%



## RENTAL PER ACRE FOR 1962

Carrying Capacity	South District	Central District	North District
ZONE	"A" - 20%	"B" - 16 2/3%	"C" - 12 1/2%
24	40 3/4¢	34¢	25 1/2¢
32	30 1/2¢	25 1/2¢	19¢
40	24 1/2¢	20 1/2¢	15 1/4¢
50	19 1/2¢	16 1/4¢	12 1/4¢
60	16 1/4¢	13 1/2¢	10 1/4¢

Grazing rentals on a Head Tax basis for 1962 on Provincial Grazing Reserves were set out as follows:

Twin River Grazing Reserve	\$1.65 per month, per animal unit
Pinhorn Grazing Reserve	\$1.65 per month, per animal unit
Rannach Grazing Reserve	\$1.60 per month, per animal unit
Wanham Grazing Reserve	\$1.55 per month, per animal unit
Minburn Grazing Reserve	\$1.60 per month, per animal unit
Purple Springs Grazing Reserve	\$2.45 per month, per animal unit

Where no caretaker or other facilities are provided by the department, grazing rental on a head tax basis was set out as follows for 1962:

Grazing District "A" (South)	80¢ per month, per animal unit
Grazing District "B" (Central)	65¢ per month, per animal unit
Grazing District "C" (North)	50¢ per month, per animal unit

There were 59 Grazing Associations and grazing co-operative leases and six Provincial Grazing Reserves in operation as well as a number of applications for long term grazing leases by Associations in the process of being formed.

The following is a summary of community pastures operated by Associations and Co-operatives and Provincial Grazing Reserves.

Name of Grazing Association or Co-operative	Area in Acres
Barnwell Grazing Association	Barnwell 3,159 acres
Bear Canyon Grazing Association	Cherry Point 1,316 "
Big 4 Lease Association	Armada 3,035 "
Blackfoot Grazing Association	Tofield 24,591 "
Bluefield Grazing Association	Thelma 11,726 "
B. T. Grazing Co-operative	Hilda 26,296 "
Boundary Creek Association	Cardston 636 "
Bowell West Grazing Association	Bowell 8,008 "
Bow Island - Forty Mile Grazing Association	Burdett 24,365 "
Burkes Lake Stockman's Association	Tullibey Lake 3,120 "
Castle River Stock Association	Beaver Mines 6,159 "
Chauvin District Grazing Association	Chauvin 1,113 "
Clear Hills Grazing Association	Smoky Lake 5,721 "
Clear River Grazing Association	Bear Canyon 3,491 "
Comrey Grazing Association	Comrey 29,953 "
Cresthill Farmer Community Cattle Grazing Lease Association	Chauvin 14,271 "
Deimuth Lease Association	Turin 1,743 "
Drowning Ford Grazing Association	Medicine Hat 33,069 "

Name of Grazing Association or Co-operative (Cont'd)		Area in Acres	
Dunn Lake Cattle Association	Edgerton	3,595	"
East Peoria Smoky Grazing Association	Belloy	4,037	"
Eastern Irrigation District	Brooks	4,979	"
Elk Island Grazing Association	Whitelaw	1,936	"
Fincastle Grazing Association	Taber	1,281	"
Fir Grove Stock Association	Bellevue	3,742	"
Four Mile Creek Stock Improvements Association	Eaglesham	9,116	"
Frog Lake Cattle Association	Heinsburg	9,493	"
Green Prairie Grazing Group	Milo	2,875	"
Hays Stock Grazing Association	Hays	15,462	"
Island Lake Grazing Association	Smoky Lake	3,886	"
Jumping Pound Stock Association	Calgary	12,765	"
Keg River Community Livestock Improvement Association	Keg River	980	"
Lekenwa Cliff Grazing Association	Sunset House	1,598	"
Little Bow Grazing Association	Champion	4,349	"
Little Smoky Grazing Association	Culp	10,762	"
Lomond Grazing Association	Lomond	82,175	"
Long Valley Grazing Association	Whitelaw	3,658	"
Lucky Lake Grazing Association	Smoky Lake	5,595	"
Many Island Lake Grazing Association	Pashley	17,565	"
Milk River Co-op Grazing Association	Milk River	12,643	"
Nemiscam Community Pasture Organization #1	Nemiscam	4,780	"
Nemiscam Community Pasture Organization #2	Nemiscam	33,991	"
North Eaglesham Grazing Association	Eaglesham	2,889	"
North Group Cattle Association	Marwayne	9,931	"
North Tangent Stock Improvement Association	Tangent	2,835	"
Old Frontier Grazing Association	Marwayne	9,482	"
Peace River Grazing Association	Clayhurst	8,239	"
Pipeline Grazing Association	Redcliff	23,260	"
Poll Haven Community Pasture	Mountain View	10,462	"
Rocky Coulee Grazing Association	Bowell	4,432	"
Ross Lake Community Pasture Association	Owendale	4,473	"
Silver Valley Grazing Association	Bear Canyon	2,958	"
South Cow Creek Grazing Association	Strachan	2,239	"
Spruce Ranching Co-operative Ltd.	Parkland	19,138	"
Stirling Pasture Company Limited	Stirling	747	"
The Lakes Grazing Association	Czar	1,906	"
Tide Lake Grazing Association	Jenner	15,787	"
Tulliby Lake Stockman's Association	Marwayne	15,076	"
West Blueberry Cattlemen's Association	Blueberry Mtn.	1,600	"
Writing on Stone Grazing Co-operative	Milk River	14,278	"

#### The Twin River Provincial Grazing Reserve

The Twin River Provincial Grazing Reserve comprises an area of 24,650 acres with 31 3/4 miles of fencing. There were 65 permits issued for the grazing of 1,362 head of stock on a six month basis. The caretaker was resident on the reserve during the season May 1st, to November 1st.

**Pinhorn Provincial Grazing Reserve:**

The Pinhorn Provincial Grazing Reserve located south of Etzikom comprised an area of 25,961 acres during 1961.

Seventy-six permits were issued for the grazing of 1,407 head of stock on a 5 1/2 month basis.

Caretaker in permanent residence on reserve.

**Purple Springs Irrigated Grazing Reserve:**

The area of the Purple Springs Irrigated Grazing Reserve is 1,600 acres, 565 of which are under irrigation. The caretaker is in permanent residence on the reserve. In 1961, 65 permits were issued for the grazing of 944 head of stock on a 5 1/2 month basis.

**Rannach Provincial Grazing Reserve:**

The Rannach Provincial Grazing Reserve comprises an area of 12,232 acres with 35 miles of 4 wire fences, located north and east of Two Hills. The caretaker is in permanent residence on the reserve. In 1961, 45 permits were issued for the grazing of 804 head of stock on a 5 1/2 month basis.

**Minburn Provincial Grazing Reserve:**

Comprised an area of 7,358 acres with 21 1/2 miles of 4 wire fencing.

In 1961, 39 permits were issued for the grazing of 910 head of stock for five months.

Caretaker is in permanent residence on reserve.

**Wanham Provincial Grazing Reserve:**

Comprised an area of 3,049 acres with 20 miles of 4 wire fence.

In 1961, 23 permits were issued for 453 head for 4 1/2 months.

Caretaker is in residence from May 1st, to October 31st.

**Vauxhall Community Pasture and Reserve Area:**

The area of the Vauxhall Community Pasture and Area reserved for annual allotment was approximately 100,000 acres during 1961 with 39 3/4 miles of 2, 3, and 4 wire fencing belonging to the Department. The area was utilized during 1961, partly by the Vauxhall Grazing Association and partly by the Hays Grazing Association. On lands surrounding the area utilized by the Vauxhall and Hays Grazing Associations within the Reserve area, allotments were made to individuals during 1961 on the same basis as that followed in previous years.

**Buffalo Park Grazing Association**

The Buffalo Park Grazing Association and the South Park Grazing Association operating at Wainwright and Hardisty respectively, made use

of grazing facilities on the military camp area at Wainwright and Crown and Municipal land adjoining such military camp area during 1961. The associations involved obtained grazing privileges amounting to 11,285 cow months, 44 horse months during 1961. The arrangement for obtaining grazing privileges on this area is in accordance with an agreement between the Department of National Defense, the Buffalo Park Grazing Association, the South Park Grazing Association and the Department of Lands and Forests.

Rentals collected for grazing privileges obtained and hay cut on the military area is applied as a credit to the National Defense rental account with this department.

#### LAND CLASSIFICATION - LAND USE SPECIALIST - SOILS

The revision of the booklet "Public Lands Open for Settlement in the Peace River District, Alberta", was completed for the publication of the fourth edition. This is a co-operative effort between the Research Council of Alberta, Technical Division and Lands Branch of the Department of Lands and Forests.

Some work was done with Mr. Campbell of the grazing section to help settle local disputes in regard to best utilization of lands - grazing or cultivation.

Checking was done in some parts of the Peace River district, along the green and yellow boundary.

The Conference of the Western Directors of Lands was attended in Manitoba. A tour of land reclamation projects was made in northern Manitoba.

Considerable aerial photographic interpretation was done in connection with requests for new land subdivision and, to make available for settlement lands that are not presently open.

#### SUB-AGENCIES:

As in the past Public Land Sub-Agencies were maintained at Peace River, Grande Prairie, Edson, Rocky Mountain House, Lac La Biche and Bonnyville. The Office of Information at 514-11th Avenue, S. W., Calgary, Alberta, was also continued.

Temporary sub-agencies for one day a month during the months from April to October inclusive in 1961 were maintained at High Prairie, Spirit River and Snipe Lake and at Fort Vermilion May 9th and 10th; at Bear Canyon, May 25th and at Hines Creek May 30th, August 1st, and November 7th. The maintenance of the Sub-Agencies at these points was of a considerable benefit to the settlers.

#### INSPECTIONS:

During the fiscal year under review, the demand for Public land was on an increase.

The inspection work during the year was carried out by 17 land appraisers and grazing appraisers, in addition to one land classification

specialist. In addition to regular routine inspection work, a considerable number of lakes were inspected with a view to recreational and subdivision possibilities.

A short course was held in the spring of 1961 in conjunction with the University of Alberta Soil Survey which proved beneficial in standardizing soil ratings and land values throughout the Province.

GENERAL, GRAZING AND SCHOOL LANDS:	No.
Requests outstanding at April 1st, 1961	1,221
Requests called during fiscal year	4,717
Reports received during fiscal year	4,094
Requests outstanding at March 31st, 1962	1,844

#### SOIL SURVEY:

Requests outstanding at April 1st, 1961	266
Requests called during fiscal year	2,075
Reports received during fiscal year	1,663
Requests outstanding at March 31st, 1962	678

#### COLLECTIONS:

Reports received	906
------------------	-----

### STATISTICS - PUBLIC LANDS

April 1, 1961 to March 31, 1962

HOMESTEAD LEASES - CIVILIAN	No.	Area
Leases in force at April 1, 1961	2,895	715,909.17
Leases issued during fiscal year	419	110,126.86
Leases patented during fiscal year	211	50,259.46
Leases cancelled during fiscal year	298	75,988.73
Leases in force at March 31, 1962	2,805	699,787.84
Leases not executed	26	

#### HOMESTEAD LEASES - VETERAN

Leases in force at April 1, 1961	535	147,580.41
Leases issued during fiscal year	38	11,013.25
Leases patented during fiscal year	75	19,959.17
Leases cancelled during fiscal year	54	15,862.49
Leases in force at March 31, 1962	444	122,772.00
Leases not executed	2	

#### HOMESTEAD SALES - CIVILIAN

Sales in force at April 1, 1961	527	126,158.37
Sales granted during fiscal year	393	100,095.01
Sales patented during fiscal year	21	4,158.04
Sales cancelled during fiscal year	23	5,442.97
Sales in force at March 31, 1962	876	216,652.37

HOMESTEAD SALES - VETERAN	No.	Area
Sales in force at April 1, 1961	31	7,780.16
Sales granted during fiscal year	24	6,289.68
Sales patented during fiscal year	3	424.84
Sales cancelled during fiscal year	1	323.98
Sales in force at March 31, 1962	51	13,321.02

## HOMESTEAD LOANS

Loan contracts in force at April 1, 1961	1,103
Loan contracts issued during fiscal year	102
Loan contracts cancelled during fiscal year	18
Loan contracts paid in full during year	89
Loan contracts in force at March 31, 1962	1,098

## HOMESTEAD LOAN SALES

Sales in force at April 1, 1961	2	643.
Sales granted during fiscal year	51	14,274.25
Sales patented during fiscal year	5	1,176.00
Sales paid during fiscal year	3	799.00
Sales in force at March 31, 1962	45	12,942.25

CLEARING PROJECT LEASES AND SALES  
At March 31, 1962

Civilian Homesteads	1	320.
Veteran Homesteads	21	7,056.
Total	22	7,376.
Crop Share	4	1,278.
Cultivation	5	1,612.
Purchase Agreements	118	37,780.93

The above leases and sales are included in other reports.

## CROP SHARE LEASES - CLEARING PROJECT

Leases in force at April 1, 1961	4	1,278.
Leases issued during fiscal year	0	0
Leases cancelled during fiscal year	0	2.05
Leases in force at March 31, 1962	4	1,275.95

## PURCHASE AGREEMENTS - CLEARING PROJECT

Sales in force at April 1, 1961	139	44,501.51
Sales granted during fiscal year	4	1,291.21
Sales patented during fiscal year	24	7,689.72
Sales cancelled during fiscal year	1	337.86
Sales in force at March 31, 1962	118	37,765.14



## PUBLIC LANDS SALES

	No.	Area
Sales in force at April 1, 1961	841	112,967.77
Sales granted during fiscal year	268	27,508.46
Sales patented during fiscal year	214	17,300.32
Sales cancelled during fiscal year	17	2,299.38
Sales in force at March 31, 1962	878	120,876.53

## SCHOOL LANDS SALES

Sales in force at April 1, 1961	1,313	203,133.55
Sales granted during fiscal year	128	18,874.04
Sales patented during fiscal year	307	45,624.09
Sales cancelled during fiscal year	9	1,290.51
Sales in force at March 31, 1962	1,125	175,092.99

## ACCRUED AREA LEASES

Leases in force at April 1, 1961	576	34,074.04
Leases issued during fiscal year	0 (amendment)	0.66
Leases cancelled during fiscal year	165	8,260.50
Leases in force at March 31, 1962	411	25,814.20

## CULTIVATION LEASES - PUBLIC LANDS

Leases in force at April 1, 1961	433	88,131.32
Leases issued during fiscal year	53	10,175.38
Leases cancelled during fiscal year	69	14,310.76
Leases in force at March 31, 1962	417	83,995.94

## CULTIVATION LEASES - SCHOOL LANDS

Leases in force at April 1, 1961	980	182,451.95
Leases issued during fiscal year	116	21,868.57
Leases cancelled during fiscal year	136	25,899.13
Leases in force at March 31, 1962	960	178,421.39

## EASEMENTS

Leases in force at April 1, 1961	980
Leases issued during fiscal year	230
Leases cancelled during fiscal year	16
Leases in force at March 31, 1962	1,194

## LICENCES OF OCCUPATION

Leases in force at April 1, 1961	671
Licences issued during fiscal year	102
Licences cancelled during fiscal year	95
Licences in force at March 31, 1962	678

## MINERAL SURFACE LEASES

Leases in force at April 1, 1961	458	72,446.05
Leases issued during the fiscal year	309	2,714.87
Leases cancelled during fiscal year	50	735.29
Leases in force at March 31, 1961	717	74,425.63

MISCELLANEOUS LEASES - PUBLIC LANDS	No.	Area
Leases in force at April 1, 1961	829	28,966.01
Leases issued during fiscal year	201	4,328.60
Leases cancelled during fiscal year	203	1,998.50
Leases in force at March 31, 1962	*827	31,296.11
*Includes 416 lot leases: No area given*		

#### MISCELLANEOUS LEASES - SCHOOL LANDS

Leases in force at April 1, 1961	32	by 723.48
Leases issued during fiscal year	0	(amendment) 0.14
Leases cancelled during fiscal year	6	95.56
Leases in force at March 31, 1962	26	628.06

#### PIPE LINE AGREEMENTS

Leases in force at April 1, 1961	522	3,350.09
Leases issued during fiscal year	246	2,637.03
Leases cancelled during fiscal year	2	10.87
Leases in force at March 31, 1962	766	5,976.25

#### PIPE LINE INSTALLATIONS

Leases in force at April 1, 1961	7	67.21
Leases issued during fiscal year	15	31.41
Leases cancelled during fiscal year	0	0
Leases in force at March 31, 1962	22	98.62

#### RIGHTS OF ENTRY

Rights of Entry at April 1, 1961	5,591
Applications received during fiscal year	330
Rights of Entry cancelled during fiscal year	195
Rights of Entry granted during fiscal year	328
Applications pending at March 31, 1962	23
Rights of Entry at March 31, 1962	5,724

#### SEED CROP LEASES

Leases in force at April 1, 1961	2	8,856.60
Leases issued during fiscal year	1	7,493.00
Leases cancelled during fiscal year	0	0
Leases in force at March 31, 1962	3	16,349.60

#### SAND & GRAVEL LEASES

Leases in force at April 1, 1961	316
Leases issued during fiscal year	51
Leases renewed during fiscal year	18
Leases cancelled during fiscal year	40
Leases in force at March 31, 1962	327

## QUARRYING LEASES

	No.	Area
Leases in force at April 1, 1961	5	
Leases issued during fiscal year	0	
Leases cancelled during fiscal year	0	
Leases in force at March 31, 1962	5	

## TOWNSITE LEASES

Leases in force at April 1, 1961	5	759.33
Leases issued during fiscal year	0	0
Leases cancelled during fiscal year	2	395.68
Leases in force at March 31, 1962	3	363.65

## GRAZING LEASES

Leases in force at April 1, 1961	3,416	3,652,082.94
Leases issued during fiscal year	215	97,732.92
Area added by amendment		41,357.09
Leases cancelled during fiscal year	88	40,108.04
Area deleted by amendment		23,755.45
Leases renewed during fiscal year	35	69,375.03
Leases in force at March 31, 1962	3,543	3,727,309.46
Leases not executed	30	

## TRANSFER OF ADMINISTRATION &amp; CONTROL

Department of Municipal Affairs	74	11,108.50
Government of Canada	12	384.88
Total	86	11,493.38

## GRAZING PERMITS - PUBLIC LANDS

Edmonton	562	87,963.23
Calgary	520	113,483.68
Peace River	344	78,412.65
Grande Prairie	134	29,339.02
Total	1,560	309,198.58

## GRAZING PERMITS - SCHOOL LANDS

Edmonton	269	54,155.93
Calgary	207	58,984.92
Peace River	60	14,156.90
Grande Prairie	20	5,642.90
Total	556	132,940.65

## HAY PERMITS - PUBLIC LANDS

No. of Permits issued	595
Number of tons cut	8,622

## HAY PERMITS SCHOOL LANDS

No. of Permits issued	77
Number of tons cut	1,045

ROAD ALLOWANCE LEASES	No.	Area
Leases in force at April 1st, 1961	1,658	72,388.42
Leases issued during fiscal year	171	4,010.69
Leases cancelled during fiscal year	79	4,013.04
Leases in force at March 31st, 1962	1,750	72,386.07

AUCTION SALES	Listed	Sold
Public Lands	191	154
School Lands	138	127
Highest Price per acre	\$110.00	
Average Price per acre	\$ 16.84	

NOTIFICATION FOR TITLE	No.
Unpatented Homestead and Soldier Grant Entries April 1st, 1961	25
Notifications for title issued during fiscal year	1
Homestead Entries cancelled during fiscal year	3
Unpatented Homestead and Soldier Grant Entries March 31st, 1962	21

#### ASSIGNMENTS REGISTERED (Leases, Permits and Sales)

Public Lands	488
School Lands	96

#### APPLICATIONS RECEIVED - PUBLIC AND SCHOOL LANDS

	Received	Cancelled
Homestead Leases	740	176
Accrued Area	1	0
Cultivation - Public Lands	82	16
Cultivation - School Lands	121	19
Purchase	31	15
Miscellaneous	308	71
Licence of Occupation	194	29
Easement	280	19
Sand & Gravel	72	14
Homestead Loans	176	52
Homestead Sales	631	91
Mineral Surface	492	49
Crop Share	0	0
Seed Crop	2	1
Townsite	0	0
Rights of Entry	330	11
Pipe Line Agreements	297	7
Pipe Line Installations	23	0
Grazing - New	485	182
Grazing - Renewal	102	4
Road Allowance	227	2
Agriculture & Tree Farm Sale	132	2
Total	4,726	760

## FORESTRY

## Report of the Director of Forestry

E. S. HUESTIS

The Alberta Forest Service is responsible for the management and protection of the forested or what is commonly called the Green Area of the province.

During 1961 every province in Canada was faced with the worst fire season that has been experienced in many years. All provinces reported many and large fires and Alberta was no exception. It was necessary to take action on 811 forest fires, the largest number ever recorded in one year in Alberta. However the acreage of timber area burned, some 193,545 acres, was not as great as other years when the number of fires was much smaller. This speaks highly for the larger and more efficient fire fighting organization which has been built up over the past few years. Credit must be given to the increased use of aircraft, both fixed wing and helicopters which have been used so effectively in taking swift action on fires in remote areas. Fast action has definitely reduced the area of loss. It has also reduced the percentage of loss of valuable timber stands. The loss of good timber stands was small in the total area burned.

The field staff of the Alberta Forest Service can be justly proud of doing a very good job of fire suppression under extremely unfavourable conditions.

The past few years have shown a marked increase in the number of fires caused by lightning. Up until 1954 the percentage of fires caused by lightning was not above 10%. Since that year it has risen to 23% in 1959. However in 1961 the number of lightning fires suddenly increased to 41.8%. Many of these fires started in remote areas, rendering fast suppression difficult. In view of the large percentage of such fires, the amount of acreage burned is considered small.

Suppression costs also reached an all time high. It was necessary to expend over 2 1/4 million dollars.

During the year under review the program of constructing ranger stations was continued with a view to stationing field staff in locations within their districts from which they can best administer their areas. At each station a ranger house, and at some sites an assistant ranger cottage, are constructed along with a tool cache and garage. These buildings are pre-cut in Edmonton and shipped to the sites for erection. Nine houses and six cottages were constructed in 1961. It is hoped that all field personnel will be supplied with accommodation in the next two or three years.

The number of lookout towers is continually increased to provide good detection in all forest areas. Nine additional steel towers were erected in 1961 along with the necessary cabins for living accommodation of the towermen.

Road construction into remote areas is being sustained. In addition to the use of aircraft to fight fires, it is necessary to move suppression crews in on the ground to take over fire fighting operations

after the initial action has been taken from the air. Roads are necessary to reach remote areas.

The forestry trunk road building program continues along the route leading from Goodwin in the Grande Prairie area to Nordegg, west of Red Deer. When this road is finished it will complete a scenic route from Coleman in the Crowsnest Pass to Goodwin in the Grande Prairie area.

Radio communication continues to play an important part in forest service organization. Effective fire fighting operations and control of aircraft depend upon it. During the year work was carried out to change over radio communication in the Edson division to more efficient VHF. In addition seven special fire communication units were completed so that communication could be assured on all parts of a large fire and from the base camp to the main organization. In this way men, machines, equipment and supplies can be moved and used most effectively.

During the latter part of the year a more effective teletype system linking all forest divisions and Edmonton was installed to replace the old system.

Early in 1962 consideration was given to placing the radio communication system under the larger Alberta Government Telephone system. This change-over was effected April 1, 1962.

Last year featured the official opening of a new Forestry Training School at Hinton. This new building permits expansion of the program of training forest officers as well as training Fish and Wildlife officers and persons from industry. The training of lookoutmen formerly carried out at divisional headquarters was held at the Hinton school with improved success.

The department has recently taken over the responsibility of the Junior Forest Warden movement in Alberta. Headquarters for this work has been located at the Forestry Training School. This very worthwhile training of younger boys is spreading rapidly throughout the province. There are now 229 boys belonging to ten clubs and 17 members in the Lone Patrol. This movement should expand further in the next few years and is expected to provide benefit material. A group of young people trained in forest conservation and willing to spread this information in their community is a priceless asset.

Last year it was necessary to report a slump in the lumber market. Following this slump the department lowered the dues on lumber from \$5.50 to \$4.15 per thousand feet board measure. Toward the end of the year the market made some recovery.

During the year one hundred and five timber berths were sold while twenty-four were not sold because of lack of interest by the industry. The berths contained approximately six hundred and fifty million board feet.

Alberta's reforestation program continues to expand. Over 4,000 acres were scarified, over 3,400 acres seeded and 125,400 trees were planted. In cooperation with the Department of Agriculture the tree nursery at Oliver has been expanded; by 1964 a stock of one million trees will be available.



The oil and gas industries are extending their operations in the forest area of the province. This brings added responsibility to forestry field staff to supervise their activities as these affect forest cover. This industry has been very cooperative in its attempt to reduce timber damage in geophysical, drilling and other operations. Their efforts to remove any fire hazard they may create are most commendable.

The demand for cattle grazing privileges in The Rocky Mountains Forest Reserve continues to increase. Very careful studies are made of all grazing areas to assure that feed will be left for wildlife and that no area will be overgrazed.

The Forest Surveys Branch continues to give excellent service in maintaining up to date aerial photos and maps of various kinds and scales to meet the needs of government and industry. The oil and gas industry are making increasing use of the services of this branch. Timber operators have also increased their use of photos and maps.

The work of this branch is of great value in planning for forest protection and forest management.

The 1961 session of the Legislature gave approval to a new Forests Act which became effective August 1, 1961. This new act is shorter and more concise than the former act and should be more easily interpreted by the public.

During September of 1961 we were privileged to take part in the Resources for Tomorrow Conference which was held in Montreal. This conference which was very capably organized should have a lasting effect on the management of our natural resources in the future.

## FOREST PROTECTION

### WEATHER

Weather played a big role in the past fire season in Alberta. Due to light snowfall during the winter, very dry conditions were experienced in the early spring, and with warm high winds and very little precipitation the spring hazard rose alarmingly to become extreme throughout most areas by early and mid-summer. Unprecedented early lightning storms started in the middle of May and extended well into June. Temperatures in the 80° range prevailed for lengthy periods, from time to time accompanied by high, scorching winds. Intermittent rain over scattered areas gave brief respite but were not of sufficient volume or duration to give much relief. Electric storms were prevalent and numerous dry lightning strikes were recorded. Late summer and early fall continued warm, with occasional light rains and temperatures well above normal. First snows were reported from mountain and northern districts in mid-September, when a general cooling trend developed and spread throughout the Province. Very heavy snows were reported in all areas during the months of November and December.

### FIRE SUPPRESSION

Suppressive action was taken on 811 fires. Of these fires, 573 (70.7%) originated in the forest zone and 238 (29.3%) in the settlement

zone. A total of 193,545 acres were burned over, consisting of 157,257 acres of forested land, 25,008 acres of non-forested land and 11,280 acres of private land.

In addition to the above mentioned fires, action was taken on two fires outside the Alberta protection area. One of these fires was in the Northwest Territories and the other was in British Columbia.



GRANDE PRAIRIE - SIMONETTE FIRE - 1961

## FIRE CAUSES

Principal causes were lightning, responsible for 41.8%; campers, 13.1%; incendiary, 10.5%; settlers, 9.4%; and smokers, 9.0%, forming 83.8% of all fires. Principal cause showing improvement is campers, declining from 23.0% to 13.1%. Causes showing increases are lightning, from a previous 22.2% to 41.8%; unknown, from 2.5% to 4.4%; and, public projects from 1.9% to 2.2%. It should also be noted that lightning fires have increased due mainly to better detection methods. In 1955 lightning was responsible for 15.1% of the fires and this year lightning has been responsible for 41.8%.

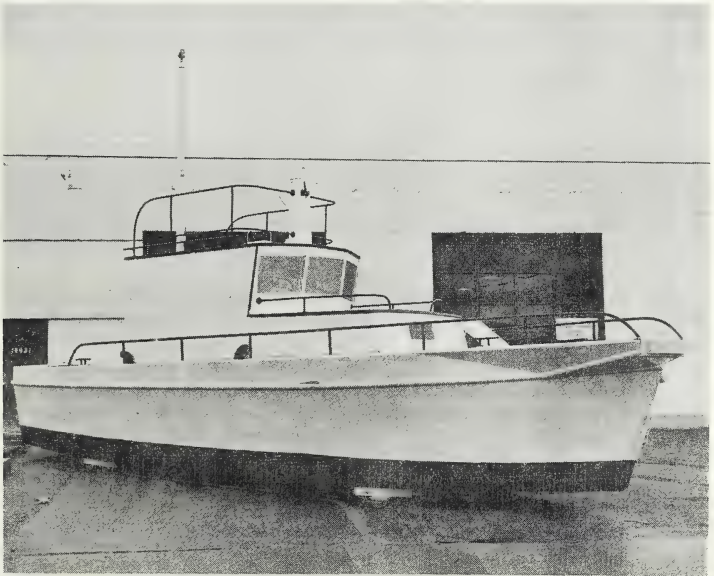
## FIRE DETECTION

The detection system expansion was continued with the addition of six new towers, bringing the total number to 102 when those for this fiscal year are finally completed.

Listed below are the number of fires reported by the different agencies, indicating an increase in fires reported by aircraft and continued good co-operation by the public:

Forest Officers	Towers	Public	Railway	Aircraft
131	324	209	3	144
Percentage:				
16.1%	39.9%	25.8%	0.4%	17.8%

A total of 80 prosecutions were cited and 75 convictions obtained by the Forest Service under The Forests Act.



A NEW RIVER BOAT FOR LAC LA BICHE FOREST DIVISION

## AIRCRAFT

The assured fleet of aircraft for 1961 was:

Department owned helicopters	1 Bell 47J
	1 Bell 47J2
Department owned fixed-wing	2 Helio Couriers
Seasonal lease helicopters	3 Bell 47J
Seasonal lease fixed-wing	3 Beavers (2/wheels 1/floats)
TOTAL	10

In addition, it was necessary to obtain the services of an additional 74 aircraft during the peak period. Aircraft dispatching system functioned well, controlling the movement of as high as 46 aircraft at one time.

Augmenting forest fire lookout facilities, fixed-wing aircraft travelled a total of 69,284 miles on fire search patrol, while a total of 475 miles was done by helicopters.

Bentonite for fire bombing was used with considerable success during the heavy period and with proper organization and planning can be considered a sound and useful tool in fire suppression. Bentonite was applied on a total of 14 fires, using a total of 321,000 pounds.

## SPECIAL EQUIPMENT

Research was carried out on jet drive boat. This unit has good possibilities, however, a serious problem developed in excessive wear on cutlass bearing due to river silt.

One more boat was built for northern waters, a 24 ft. steel hull tunnel type.

Experiments have been carried out with fibreglass sandwich construction and samples have been submitted to the University of Alberta for engineering analysis.

Special shutters were developed for fibreglass cupolas for use in mountain top lookouts where high winds cause extensive window breakage.

Work continues on the portable power winch.

The portable tool grinder was tested in the field and can be considered successful.

## CONSTRUCTION AND MAINTENANCE

## ROADS

During the year of 1961 a road supervisor was added to the permanent staff in order to help co-ordinate maintenance and construction of forest roads throughout the province. The services of one consulting engineer were available throughout the year.

A sum of \$1,295,538.87 was spent on the construction of new roads and 50% of this sum was reimbursed to the Government of Alberta by the Government of Canada under a Federal-Provincial Access Road Agreement.

The following construction was carried out:

New road grade	203 miles
New right-of-way clearing	1,205 acres
Widening of old right-of-way	1,932 acres
Total length of 24 new bridges	901 feet

The new forestry trunk road from Nordegg to Goodwin continued to be the major project in 1961. Seventy-nine and a half miles of new right-of-way was cleared and 53.5 miles of new grade was constructed. The Nordegg-Goodwin road has a 24' top and the grade was built up 3.5' above the bottom of 10' scraper ditches. The Forest Service expanded its use of precast concrete stringers on main bridges where heavy loads are common.

Road maintenance was increased on the forestry road network which now totals 3,537 miles. Three new heavy duty graders were purchased during the year bringing the total number of patrol graders to sixteen. The expenditure on road maintenance for the year was \$522,250.00 exclusive of permanent staff salaries.

## BUILDINGS

All new buildings for the Forest Service were pre-cut in the Edmonton Carpenter Shop, then packaged and shipped to the building locations throughout the province. The construction of one house and garage at Fort Chipewyan in northeastern Alberta required the building material to be shipped by train for three hundred miles then reloaded to barges for an additional two hundred miles by river.

The following building projects were completed during the year:

- 9 Ranger Station Houses, 24' x 40'
- 6 Ranger Cottages, 24' x 34'
- 4 Tool Caches, 16' x 24'
- 9 Double Garages, 22' x 24'
- 9 Steel Lookout Towers
- 10 Tower Cabins, 3 room
- 10 Engine Houses for towers
- 5 Fuel Caches
- 9 Campshelters
- 7 Miscellaneous Buildings, bunkhouses, checking station, etc.

72

In addition to the above the Department of Public Works constructed the following buildings for the Alberta Forest Service:

- 3 Warehouses, 40' x 90'
- 3 Garage Workshops, 4 stall

Increased emphasis was placed on planned maintenance for the 714 buildings of the Alberta Forest Service. Eight forest divisions now have carpenter foremen to supervise the new construction and maintenance of buildings.



## FIRE SUPPRESSION

During the fire season 1961, a total of 811 fires were dealt with as shown below in classes:

- 360 Class "A" or small fires (1/4 of an acre or less)
- 230 Class "B" fires (over 1/4 up to 10 acres)
- 125 Class "C" fires (over 10 acres up to 100 acres)
- 55 Class "D" fires (over 100 acres up to 500 acres)
- 41 Class "E" fires (over 500 acres)

COMPARISON OF FIRE CAUSES BY PERCENTAGES  
FOR THE YEARS 1950 to 1961 INCLUSIVE

CAUSE	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
Campers	23.8	16.7	25.0	40.0	36.5	14.7	14.4	17.8	23.1	20.9	23.0	13.1
Smokers	10.1	23.8	9.4	10.0	11.8	9.9	12.0	9.5	13.8	12.2	11.8	9.0
Settlers	14.9	19.0	12.5	10.7	17.6	21.9	24.0	16.7	17.0	13.2	12.0	9.4
Railways	10.9	10.7	17.7	11.4	3.5	6.0	1.2	1.6	5.6	2.6	2.5	0.2
Lightning	8.9	8.3	3.1	5.0	5.9	15.1	17.8	18.3	17.5	23.0	22.2	41.8
Industrial	4.0	6.0	7.8	2.9	7.1	6.0	5.0	12.8	6.0	5.3	9.1	7.5
Incendiary	8.0	8.3	12.0	12.9	1.2	13.8	12.0	14.4	10.3	15.3	12.2	10.5
Public Projects	1.2			.7	4.7	1.8	1.9	2.2	1.5	2.6	1.9	2.2
Unclassified	6.9	6.0	4.2	2.2	2.3	3.5	4.7	1.1	1.5	1.5	2.8	1.9
Unknown	11.3	1.2	8.3	4.2	9.4	7.3	7.0	5.6	3.7	3.4	2.5	4.4

COMPARISON OF FIRE LOSSES AND CAUSES BY PERCENTAGES  
FOR THE YEAR 1961

CAUSES	Number of Fires %	Merchantable Timber Losses Acres %	Total Acreage Burned %
Campers	13.1	3.0	2.7
Smokers	9.0	0.6	2.3
Settlers	9.4	8.2	8.3
Railway	0.2	0.0	0.0
Lightning	41.8	76.8	74.8
Industrial	7.5	1.3	1.2
Incendiary	10.5	2.5	3.0
Public Projects	2.2	0.0	0.0
Unclassified	1.9	0.9	0.8
Unknown	4.4	6.7	6.9

SUMMARY SHOWING TOTAL NUMBER OF FIRES AND BURNT OVER AREAS  
FROM 1950 to 1961 INCLUSIVE

YEAR	Total Fires	Non Forested Acres	Forested Acres	Total Area Acres	Suppression Costs \$
1950	248	233,509	472,178	705,687	336,304
1951	84	13,303	10,565	23,868	25,092
1952	192	184,905	299,424	484,329	70,443
1953	140	137,275	196,826	334,101	188,202
1954	85	71,008	57,869	128,877	77,453
1955	232	76,716	124,578	201,294	165,906
1956	258	116,679	577,801	694,480	657,092
1957	180	3,777	11,709	15,486	129,956
1958	464	75,753	155,240	230,993	1,475,347
1959	469	36,805	51,154	87,959	1,184,341
1960	474	9,497	10,463	19,960	345,623
1961	811	36,288	157,257	193,545	2,365,862
Totals	3,637	995,515	2,125,064	3,120,579	7,021,621



## FORESTRY

HEAD OFFICE

IMPROVEMENTS - STATEMENT OF MAN - DAYS WORKED BY FORESTRY PERSONNEL - FISCAL YEAR 1961 - 62

## FOREST PROTECTION BRANCH

## NEW CONSTRUCTION

	House and Cottages	Garages and Sheds	Fences	Lookouts and Towers	Water Supply Systems	Barns and Stables	Telephone Lines	Bridges	Grounds	Trails	Cabins	Camp Shelters	Access Roads	Radio	Airstrips	Misc.	TOTAL
Rocky Mtn. House	28	6		112				90	30				40				316
Edson	125	12	3	57	11.5		22.5	47				27.5	61	1	1.5	32	403
Whitecourt	139	4.5		46	10.5			13.5	150.5		5		833.5		51	13.5	1,267
Grande Prairie	87.5	1.5		15.5				25.5	171.5			12.5	343.5		2		659.5
Peace River	7	1		4	10			1	33				38.5				94.5
Slave Lake	332	23		138	5			118				113	393		6	16	1,144
Lac La Biche	35.5	40	5	36	29		2	8.5	10	160.5	54.5	9.5	177.5	7	63.5	13.5	651.5
Crownest				123									132	23		51	329
Bow River		17.5										26				126	169.5
Clearwater				2					11.5	27.5	5	26.5	79.5		20		172
TOTAL	754	146.5	8	533.5	66		24.5	138.5	571.5	188	64.5	215	2,098.5	31	144	373.5	5,206

ANNUAL STATEMENT OF FIRES BY CAUSES, MONTHLY DISTRIBUTION, ETC.

CAUSE	NUMBER						Damage \$	Area Acres	MONTHLY DISTRIBUTION												Fires Inside National Forests		Fires Outside National Forests		
	A	B	C	D	E	Total			P. C.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	No.	Area	No.	Area
Camp-fires	68	26	8	3	1	106	13.1	42460	5146	13	4	5	15	16	10	5	14	5	8	6	5	11	Spot	95	5146
	28	28	8	8	1	73	9.0	13891	4367				10	27	8	4	14	3	5	2	9	6	64	4361	
	21	16	24	12	3	76	9.4	32945	16101			1	14	43	3	1	7	2	5			76	16101		
Railways						2	0.2	20	5				2										2	5	
Lightning	161	94	39	16	29	339	41.8	2728200	144774				61	196	43	37	2				34	210	305	144564	
Industrial Operations	34	17	8	1	1	61	7.5	36632	2266		1	3	25	13	9	3	2		4		1	5	Spot	56	2266
Incendiary	18	28	24	13	2	85	10.5	36988	5792				10	37	20	2	10	2	2	2			85	5792	
Public Projects	13	4	1			18	2.2	798	43		1		7	2	3	1	3	1			4	1	14	42	
Unclassified	8	4	2		1	15	1.9	12932	1512				3	3	3	2	2	2			3	6	12	1506	
Unknown	9	11	11	2	3	36	4.4	46837	13431				3	13	10	1	7	1	1			36	13431		
TOTALS	360	230	125	55	41	811		2951703	193545	13	6	9	89	215	262	62	96	18	25	10	6	66	223	745	193322
PER CENT	44.4	28.4	15.4	6.8	5.0		100			1.6	0.7	1.1	11.0	26.5	32.3	7.7	11.9	2.2	3.1	1.2	0.7	8.1			91.9

# FORESTRY

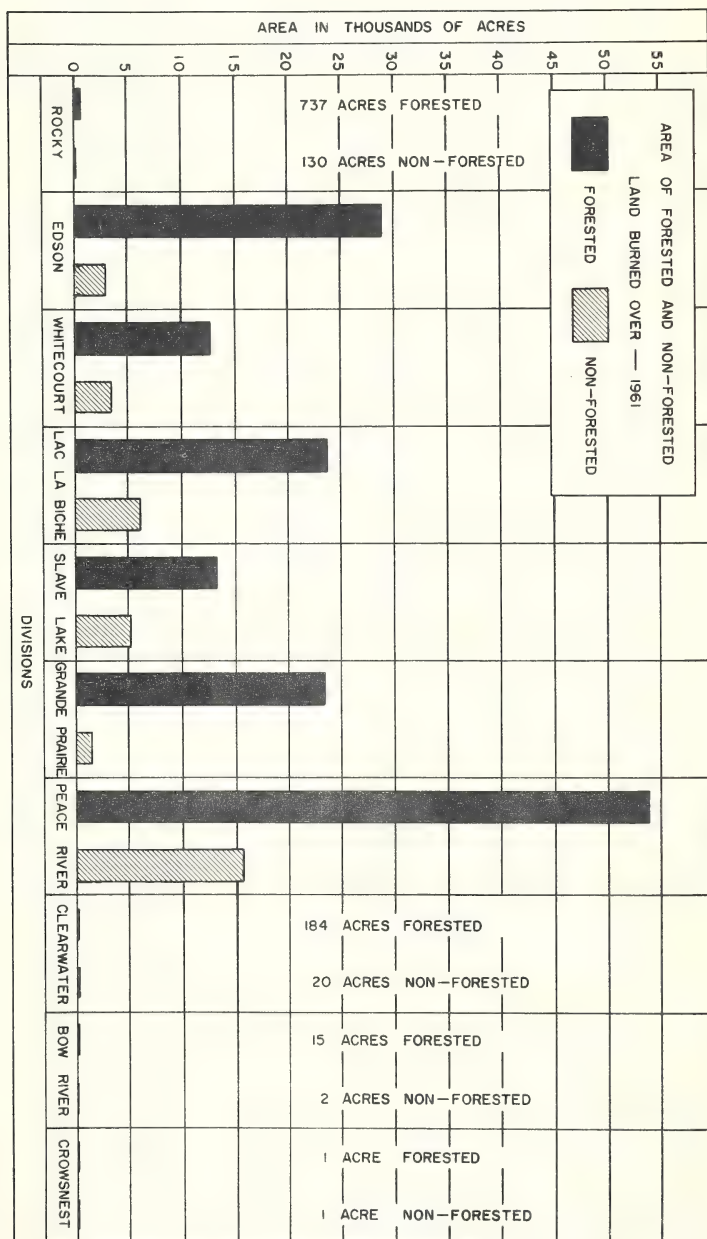
39

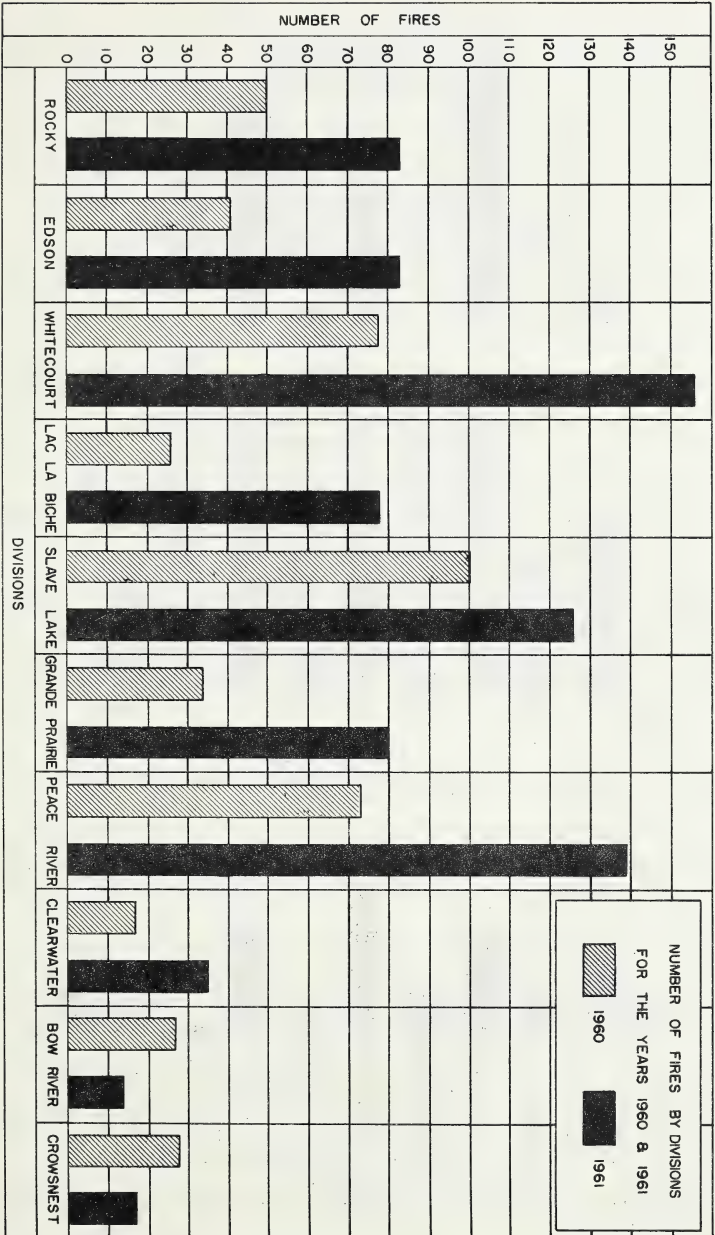
## HEAD OFFICE

### MODE OF TRANSPORTATION AND MILEAGE TRAVELLED BY FORESTRY PERSONNEL

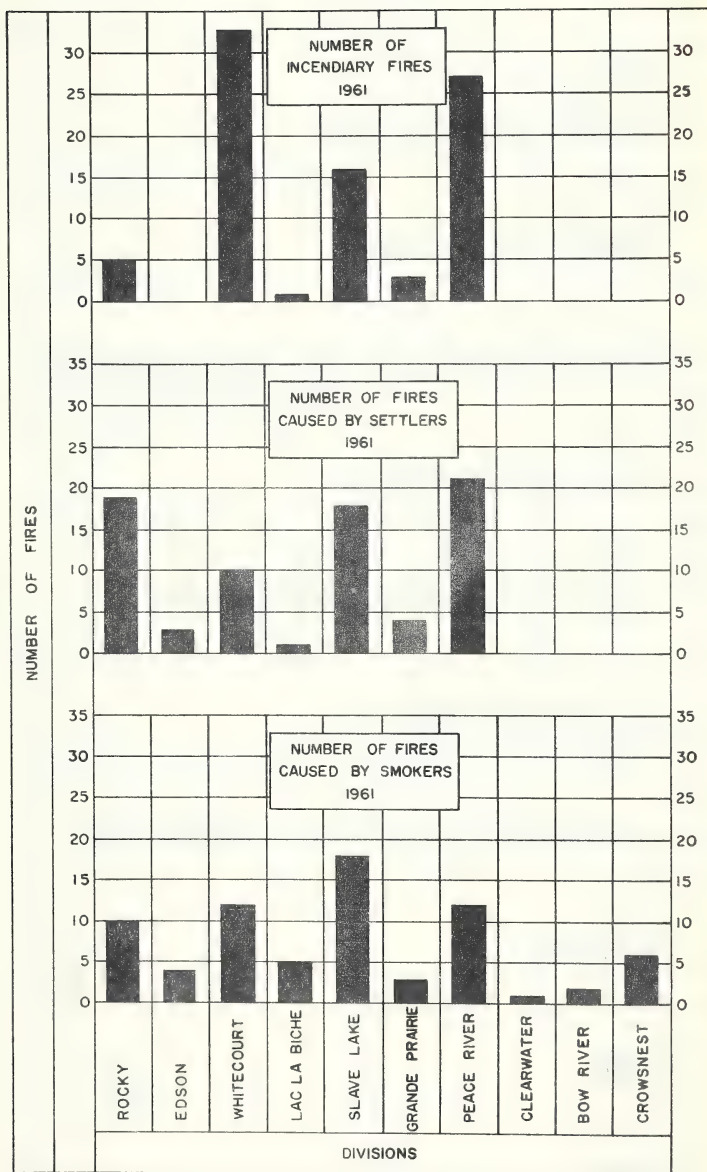
FISCAL YEAR 1961 - 62

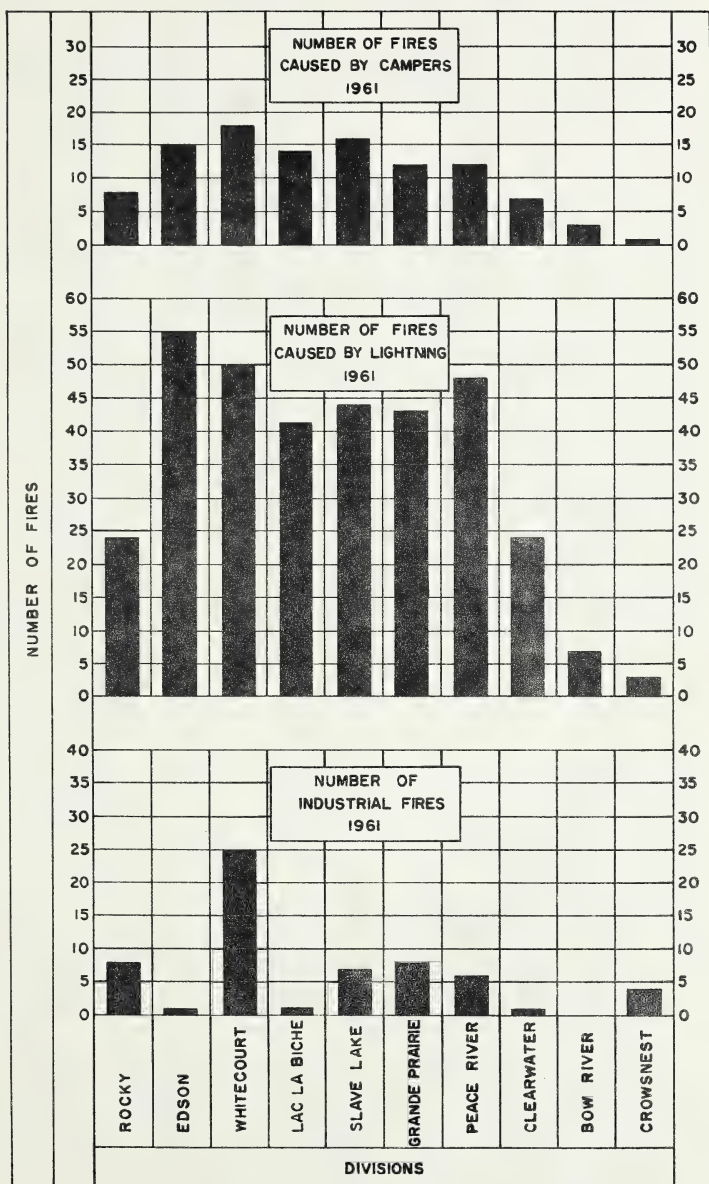
DIVISIONS	FOOT	HORSE	SPEEDER	AUTO	BOAT	PLANE	RAILWAY	BUS	OTHERS	TOTALS
Rocky	605	16	11	145938	—	23302	—	—	367	170239
Edson	4323	453.5	—	304302	164	28044	437	—	3204	340927.5
Whitecourt	3143	251	—	380219	303	5212	—	442	5085	394655
Grande Prairie	3024	264	—	251882	148	14644	960	—	1375	272297
Peace River	3069	90	—	420691	1953	30650	357	—	6628	463438
Slave Lake	7756	299	57	347944	563	11259	—	—	15768	383646
Lac La Biche	1445.5	93	2340	114914	6364	15345.5	7678	—	7279.5	155459.5
Crownest	1784	415	—	146173	—	—	—	—	2757	151129
Bow River	1740	2521	—	375856	597	68	341	—	—	381123
Clearwater	970	794	3	148549	—	4846	—	335	1099	156596
Subtotal	27859.5	5196.5	2411	2636468	10092	133370.5	9773	777	43562.5	2869510
Radio	—	—	—	99410	—	12504	1698	370	—	113982
TOTAL	27859.5	5196.5	2411	2735878	10092	145874.5	11471	1147	43562.5	2983492













GOVERNMENT OF THE PROVINCE OF ALBERTA  
DEPARTMENT OF LANDS AND FORESTS

# ANNUAL SUMMARY OF FOREST FIRE LOSSES

## SUMMARY OF FIRES BY CAUSES

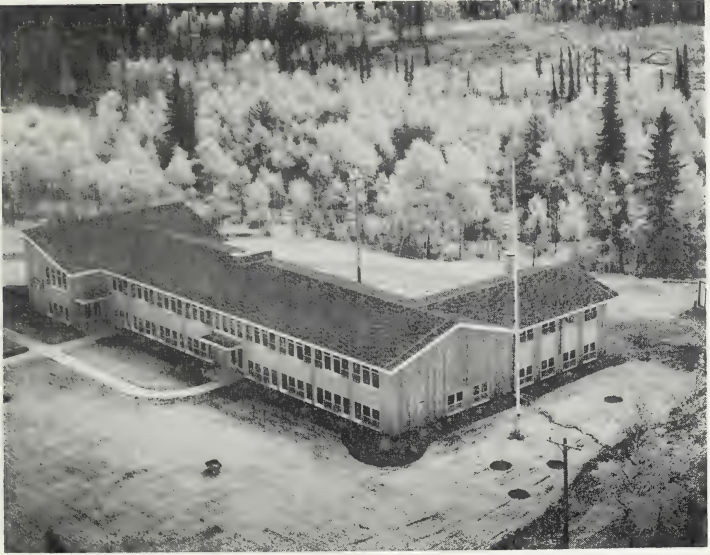
POINT OF ORIGIN	CAUSE	CLASS OF FIRE					LANDS AFFECTED (ACRES)						VOLUME LOSS		VALUE LOSS IN DOLLARS								SUPPRESSION COSTS		
							CROWN LANDS					Private Land			Total Area	Saw Timber M. F.B.M.	Others Cords	Saw Timber F.B.M. \$	Others Cords \$	Young Growth \$	Potential Productive \$	Total \$			
		Merchantable Timber	Young Growth	Potential Productive	Non Productive	Total Crown Land																			
CAMPERS		68	26	8	3	1	806	58	3872	410	5146	108	5254	3563	13262	19477	12325	549	5809	38160	4300	42460	4649	161819	166468
SMOKERS		28	28	8	8	1	473	345	123	664	1605	2762	4367	114	3864	617	2592	2615	187	6011	7880	13891	2126	38325	40451
SETTLERS		21	16	24	12	3	2410	268	10190	192	13060	3041	16101	300	21811	1651	13560	2370	15284	32865	80	32945	3401	121932	125333
RAILWAYS			2				1				1	4	5	1	29	5	15			20		20	34	290	324
LIGHTNING		161	94	39	16	29	70059	24647	26050	21920	142676	2098	144774	149796	1119295	823983	1445706	379182	38929	2687800	40400	2729200	26317	1708048	1734365
INDUSTRIAL		34	17	8	1	1	519	1	1431	158	2109	157	2266	99	644	587	706	5	2384	3682	32950	36632	2326	38852	41178
INCENDIARY		18	28	24	13	2	2190	96	1661	351	4298	1494	5792	1511	36968	8238	24105	712	2490	35545	1443	36988	3910	135948	139858
PUBLIC PROJECTS		13	4	1			22	19		2	43		43	72	117	414	149	235		798		798	488	2728	3216
UNCLASSIFIED		8	4	2		1	530	10	916	54	1510	2	1512	285	10730	1508	5925	125	1374	8932	4000	12932	537	20217	20754
UNKNOWN		9	11	11	2	3	3653	427	6480	1257	11817	1614	13431	1037	45384	5596	26320	3201	9720	44837	2000	46837	2171	91744	93915
TOTALS		360	230	125	55	41	80663	25871	50723	25008	182265	11280	193545	156778	1252104	862076	1531403	388994	76177	2858650	93053	2951703	45959	2319903	2365862

## SUMMARY OF FIRES BY DIVISIONS

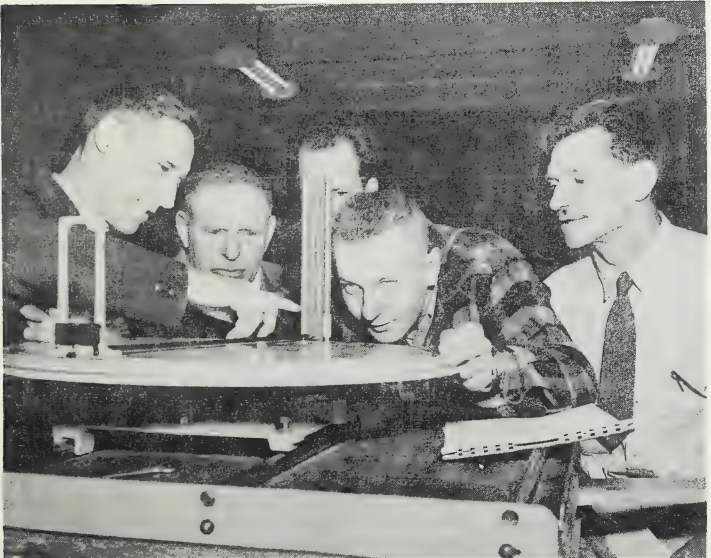
CROWNEST		14	3						1	1	2		2					5	1	6	10	16	352	168	520
BOW RIVER		7	7				2	6	7	1	16	1	17	16		91		101	10	202		202	409	2190	2599
CLEARWATER		26	5	3	1		47	137		20	204		204	27	532	117	691	2116		2924	19000	21924	1122	55472	56594
ROCKY MTN. HOUSE		49	22	10	2		511	190	36	29	766	101	867	205	3916	1021	4529	1897	53	7500	4250	11750	2843	72727	75570
EDSON		56	14	7	1	5	26809	1205	952	2830	31796	74	31870	58627	484898	322416	651940	18621	1428	994405	35000	1029405	6995	421812	428807
WHITECOURT		67	38	29	15	7	5635	292	6937	1605	14469	2857	17326	7686	94706	42121	105986	3092	10499	161698	14790	176488	8748	439529	448277
LAC LA BICHE		21	35	10	3	9	14644	7810	1313	6081	29848	78	29926	41854	210477	230521	240294	120316	1970	593101	4000	597101	6003	232062	238065
SLAVE LAKE		39	42	28	11	6	3399	598	9312	1570	14879	3672	18551	6892	65681	37688	73547	5727	13971	130933	4490	135423	6179	339315	345494
GRANDE PRAIRIE		33	19	13	8	7	17073	793	5661	1510	25037	40	25077	36415	256572	200349	308783	9110	8492	526734	7000	533734	5750	372914	378664
PEACE RIVER		48	45	25	14	7	12543	14840	26504	11361	65248	4457	69705	5056	135322	27752	145633	228009	39753	441147	4513	445660	7558	383714	391272
TOTALS		360	230	125	55	41	80663	25871	50723	25008	182265	11280	193545	156778	1252104	862076	1531403	388994	76177	2858650	93053	2951703	45959	2319903	2365862







FORESTRY TRAINING SCHOOL - HINTON



FIRE LOOKOUTMEN IN TRAINING

## FORESTRY TRAINING SCHOOL

The Forestry Training School continued its program of instruction at Hinton which remained mainly in-service in nature. A total of 275 individuals was given training at the school.

The main course remained the 11 week session for Forest Officers held September 11 to December 9 inclusive. This was the eleventh consecutive year that this course was held. Of the 468 hours of classes, 22% was spent on fire control, 28% on forestry and management, 11% surveying, 8% construction and mechanics, 6% fish and wildlife, and 25% on a variety of other subjects designed to round out the training. Twenty students were selected from the field staff of the Forest Service and all successfully completed the course. Six divisional foresters attended the eight day portion of the course dealing with fish, wildlife, law and enforcement.

The fish and wildlife course was held in two terms of four weeks each. Fourteen officers from the Fish and Wildlife division attended the entire session, and one outside trainee from Manitoba attended the first term. The emphasis in this course was on biology and management of fish and wildlife, and law and enforcement.

Training for towermen was continued for the seventh consecutive year. All towermen, radio operators and relief men were brought to the school. Four courses were held to accommodate the 139 men that attended. The courses were five days in length. Subject material included tower operating, smoke reporting, radio operating, and weather observing. Trainees sat for their Department of Transport radio operating licences at the conclusion of the week.

Other courses held at the school included a three day Supervision course for 26 of the senior field staff; a three day weather course for 16 Chief Rangers; and a four day Fire Control course for 18 employees of North Western Pulp and Power Limited.

The school staff continued its assistance in fire-weather planning. A number of talks was given to various groups on a variety of forestry subjects. The mathematics correspondence course was continued. Thirty-three additional courses were sent out during the year and 20 students completed their lessons.

Provincial headquarters for the Junior Forest Wardens has been established at the school. Mr. T. Whiteley was appointed as Chief Warden to develop and co-ordinate Junior Warden activities throughout the province. A provincial charter was presented to the Honourable N. A. Willmore by the executive of the National Junior Forest Wardens which is located in Vancouver, B.C. A one week camp was held in mid-August for 21 boys and their Supervisors. These were selected from the three clubs then in existence. Since that time a number of new clubs were formed so that there is now a total of 10. These are located at Hinton, Edson, Slave Lake, Pincher Creek, Dixonville, Smith, Flatbush, Chisholm, Ft. Vermillion and New Fish Creek. A total of 229 boys belong to the clubs, and an additional 17 are members of the Lone Patrol. Prospects for the formation of additional clubs look encouraging.

## FOREST SURVEYS BRANCH

During the 1961-62 fiscal year continued progress was made on all projects initiated in the Forest Surveys Branch in previous years.

Several small mapping programs were commenced and miscellaneous services to other Branches increased but otherwise the principle projects of the Branch remained the same.

The detailed management inventory was extended into the Peace River Division and aerial photography was carried out in the Lac La Biche Division and the Edson-Whitecourt area prior to commencement of detailed inventories of management units in those areas. The Branch continued to maintain the access maps prepared for the field staff and the special maps required for forest protection purposes.

The work accomplished by the Branch may be summarized as follows:

## FOREST MANAGEMENT PLANNING

## Detailed Management Inventories

Considerable work was accomplished during the year on the detailed management inventory program. From photo interpretation and prepared base maps unit areas of forest types are measured and stratified. Random type sampling follows in the field to obtain information on volume, age and regeneration. Stand and stock tables are compiled and volume and area compilation supplied by the government data processing centre.

By the end of the year inventory results were almost completed for eight units, in addition to the twenty-nine units in the Rocky Mountains Forest Reserve and its adjacent area and several new management plans will be available soon.

During the year a management plan for Unit S-6 (see attached map) was completed and turned over to the Forest Management Branch for implementation. Completed statistical data are available for Units S-2, G-4, G-5 and G-7. Very little remains to be completed on Units S-1, P-1, P-2, W-7 and one compartment of Unit E-7. Except for a minor amount of coding, all of the Forest Reserve Units have been completed and detailed statements of results will be forthcoming from the Provincial Data Processing Centre during the 1962-63 fiscal year.

Inventories have been commenced on two units in the Lac La Biche Division and four units in the Whitecourt - Edson area.

Units P-1 and P-2 were sampled on the ground for volume, regeneration and age in the summer of 1961. A total of 3,700 volume plots for stand tables, 260 additional age class plots, 350 regeneration plots and 626 height-diameter samples were obtained by the field parties. As a result of good travelling conditions and excellent weather field work was completed ahead of schedule and crews were transferred to other field projects until the end of the work term.

An accompanying map illustrates the various stages of development of detailed inventories through to the completion of management

plans. A summary of the work accomplished during the year consists of 10,258 square miles of aerial photography, 3,167 square miles of field work, 5,704 square miles of photo-interpretation, 3,174 square miles of transferring to base maps, 2,649 square miles of final drafting, 4,388 square miles of site and maturity classification, 6,248 square miles of type numbering, 8,736 square miles of planimetering of type areas and 15,867 square miles of summarization and coding for electronic punching and compilation.

#### Timber Application Mapping

The number of timber applications for which maps were prepared was 215 compared to 230 during the previous year. Although the number of applications decreased, the area covered by mapping increased from 1,073,020 acres to 1,251,420 acres. Of this total mapped area only 547,520 acres had to be interpreted from aerial photographs with the remainder being available from detailed inventory maps and requiring only checking and modification prior to drafting the application map.

#### Cull Survey

The general field work for a cull survey of lodgepole and hybrid pine was completed and a report is being prepared. Field work was conducted in the Peace River Division and the Rocky Mountains Forest Reserve area.

During the year conversion factors were determined for correlating visible defect with total cull. The results were checked on several areas and found to be very promising. Additional testing will be necessary before concluding this study. The Forest Entomology and Pathology Branch of the Canada Department of Forestry has been most cooperative throughout the cull survey and have continued to supply facilities for provincial staff besides analyzing the cull samples that are collected and providing guidance and assistance for the program.

#### Site Survey

A forest site survey was carried out in Management Units P-1 and P-2 by a member of the staff of the Soils Survey section of the Alberta Research Council. The basis of the survey was a physiographic land classification from aerial photographs. The field work consisted of checking the site types and determining the major factors that contributed to the site classes. Results of the survey are being analyzed.

#### Permanent Sample Plots

An additional 360 permanent sample plots were established during the summer in the Whitecourt and Grande Prairie Divisions. The plots will provide growth and yield data for revision of both the detailed and broad inventories. The plot areas are also being developed as stereograms and will provide information for photo volume tables at a later date.

#### Form Class Volume Tables

Two thousand tree samples were collected on various operations throughout the Province for construction of new form class volume tables



for pine and white spruce. The merchantable board foot and cubic foot tables have been completed and released.

#### FOREST PROTECTION PLANNING

Extensive use of aircraft for fire detection and suppression necessitates constant changes in maps that are required for the air crews and associated ground control. The air patrol, fuel cache and air operations maps were once again revised with the latest information just prior to the fire season. These maps were supplied as overprinting on a standard one inch equals sixteen mile lithographed sheet. In mountainous areas special air patrol route maps at larger scales were prepared. In addition the air operation manuals of one inch equals four mile maps supplied to each divisional headquarters and Aircraft Dispatch were revised for all changes that had occurred during the previous year and converted to one hour travel time zoning.

The program of providing accurate visible area maps for lookout sites continued. During the year visible area maps based on panoramic photographs were prepared for 13 sites. Most of these locations were proposed lookout sites and maps were prepared to determine the suitability of sites. Final visible area maps were made by compiling profile charts from contour maps and checking the resultant map in the field from the lookout site. During the year sixteen profile charts were completed and nine of these were checked and adjusted where necessary from the lookout.

All forestry improvements are protected from disposition for other uses by reserving the land on which the improvement is located. In many areas there is little or no survey. In these cases the simplest method to determine the area to be reserved is by preparing plans from aerial photographs and typing the locations to base maps. During the year this procedure was used for reservation plans for 40 roads of varying lengths and for 45 ranger station and building sites. The latter plans are drawn at a scale of one inch equals eighty feet and are frequently used for further development planning. Some of the areas involved were covered by recent aerial photography taken under contract. The other areas were photographed by staff with Departmental equipment.

Twelve lookouts were supplied with plastic laminated maps for the Osborne fire finders.

#### FOREST INVENTORY MAINTENANCE

For several years the Department contracted to provide aerial photography of burned areas of any fires that significantly effect the forest resource picture and the value of management unit statistics. Because of the serious fire year and the large number of fires it was necessary to photograph 69 fires during the 1961 fire season which is considerably greater than the requirements in any previous year. Subsequently the forest cover maps and statistics were corrected and reliable fire loss estimates were provided for the fire records.

Forest inventory bases were revised for various changes for 133 maps. New photography by oil companies and Government agencies in addition to survey plans provided reliable planimetric and forest cover data for up-dating the maps.

## AERIAL PHOTOGRAPHY

In addition to the fire photography program a total of 10,258 square miles of aerial photography was completed under contract during the year. Two management units in the Lac La Biche Division were photographed at a scale of one inch equals 2,640 feet for detailed inventories. A triangular block west of Edmonton bounded roughly by Whitecourt, Edson and Alder Flats was photographed at a scale of 1 inch equals 1,320 feet. This area has been subjected to heavy oil development since the date of last photography and parts of it are in continuous demand for pulpwood. It is a mixed area of Crown and private land and detailed inventories of the timber resources are urgently required.

A third area bounded approximately by Lesser Slave Lake, the Peace River and the 114th and 117th Degrees of Longitude was photographed by single lines of 1 inch equals 1,320 feet photography spaced 24 miles apart. This area had previously been photographed in 1949 and 1950 and at that time presented a very dismal picture of the forest cover because of severe fire conditions in previous years. From the strips it was possible to determine that growth had recovered very strongly and was reproducing satisfactorily.

Several smaller aerial photography projects were carried by staff out during the year including roads, ranger station sites, town sites, oil and gas fields and timber operations.

## MAPPING PROGRAM

During the year the south-east portion of the 1 inch equals 8 mile lithographed access map of Alberta was completed. Lithographed overprinting of a broad contour pattern was also completed on all four sections of the same map. There was a turn-over of 976 of the 1 inch equals 8 mile maps for use by the Department or the public.

Twenty-one of the 1 inch equals 2 mile forest cover lithographed maps were replaced and many other maps in this series were re-lithographed or up-dated by over printing during the year. This map is in heavy demand; 8,620 maps were distributed during the year.

Most of the 21 maps in the 1 inch equals 4 mile lithographed access series were revised during the year for new developments in access and Forest Service building establishments. Almost 7,000 maps were distributed during the year with the greatest demand coming from oil companies and sportsmen.

A new series of maps showing composite forest cover conditions in the Rocky Mountains Forest Reserve was well under way by the end of the fiscal year. These lithographed maps will be completed in a two year program with the first one-half scheduled for printing early in 1962-63 and the remainder one year later.

Mosaics reproduceable in Velox prints have been prepared for several oil and gas fields. They are used primarily for land use regulation and planning.

## MISCELLANEOUS PROGRAMS

Oil and gas exploration and development activity continued strong -



ly during the year. This Branch examined 369 proposed and revised and 145 final location seismic exploration programs, an increase of 73 and 39 plans respectively over the previous year. In most cases a final plan included several proposed plans in the same area.

A total of 170 Right-of-Entry Applications was checked by the Branch. During the year a flat rate of assessment was adopted with the consent of oil companies involved in favor of detailed assessments by timber types of all timber damage. This procedure established a uniform assessment system for all similar land uses. There were 52 Licence of Occupation Applications and 260 Mineral Surface Lease locations inspected on maps and photographs.

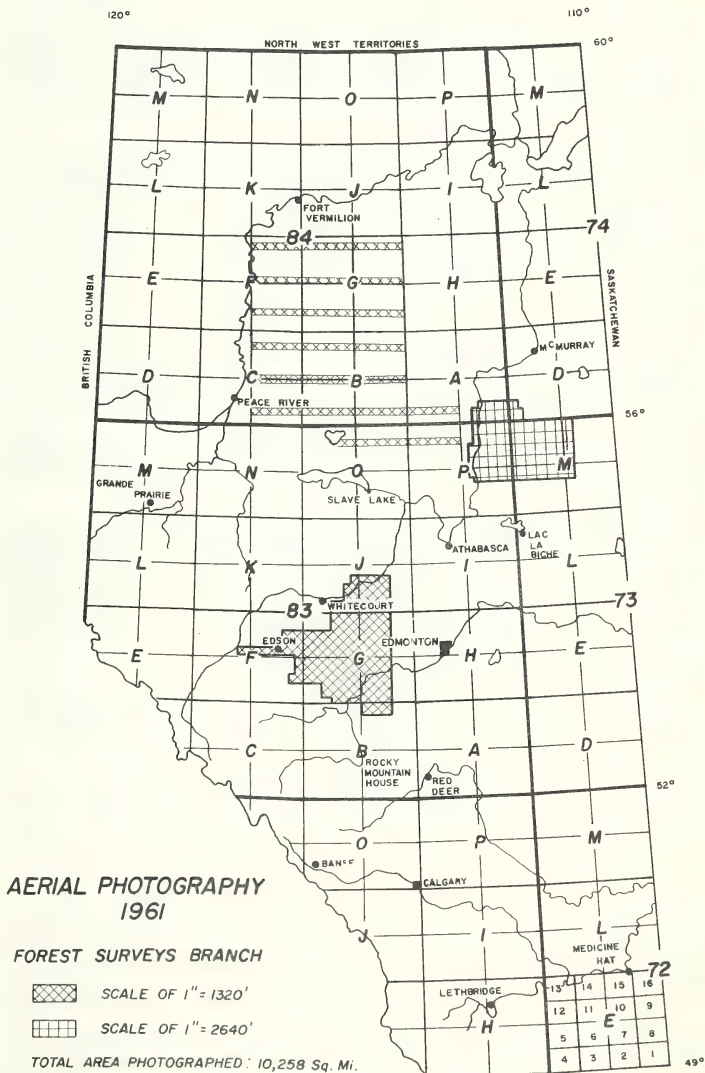
Intensive multiple use requirements in the Rocky Mountains Forest Reserve have necessitated the preparation of several specialized maps at various scales of watersheds, grazing allotments and recreational developments. One of the larger projects was a lithographed tourist map to replace the old map on a brochure describing the Reserve area.

Good progress was made during the year on the assembly of books of maps which show the present and past timber activity in detail for each active management unit in the Province. The maps are used by the Forest Management Branch to develop systematic cutting programs.

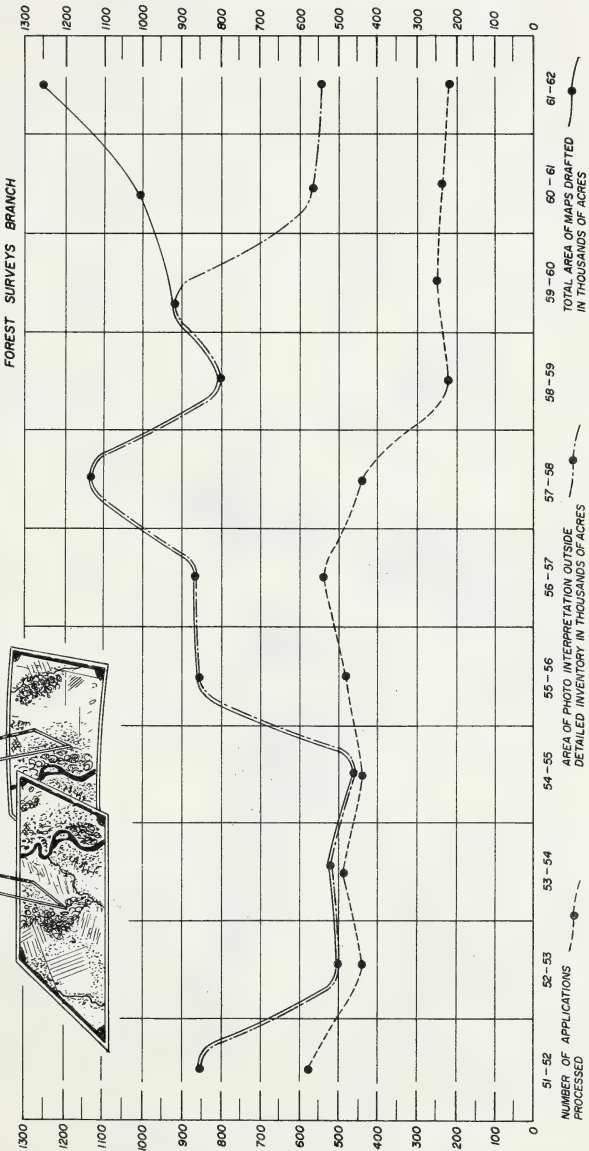
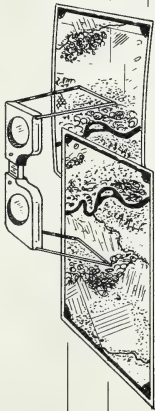
Based on the broad inventory a composite age class and species map was prepared of northern Alberta for future management inventory planning purposes.

A booklet on the Provincial forest resources was released during the year. Entitled "Alberta Forest Inventory" it describes the procedure that was followed to develop the first broad forest inventory of the Province and includes tabular statements of the forest values, production and potential of the forested area of Provincial Crown lands excluding the Rocky Mountains Forest Reserve.

The Branch was called on to provide an increasing number of photogrammetric and drafting services for other Branches and Divisions.



**DETAILED MAPPING  
FOR  
TIMBER SALES**





## FOREST MANAGEMENT

Steady progress was made during the year 1961 toward providing better management on areas classed as forested and under the administration of the Alberta Forest Service. The objective, of course, is to perpetuate the benefits to people derived from preserving forest, such as proper water supply where needed and recreation, but principally to achieve a perpetual supply of timber products to satisfy indefinitely the requirements of a prosperous and progressive industry dependent on such a source of raw material. With these objectives in mind one of the main duties of this Branch is to establish a program through the implementation of plans prepared by the Forest Surveys Branch for each of the estimated 115 management units outside of the areas leased to industries such as North Western Pulp & Power Ltd. The direct management of the latter area has been delegated through the lease agreement to the Company.

In order to facilitate and co-ordinate the work required of the Branch to implement such a program the Branch staff has been organized into the following sections:

1. Woods Operations
2. Silviculture
3. Timber Sales and Accounting
4. Forest Management Plans Implementation
5. Forest Land Uses

#### 1. Woods Operations Section

Market demand for forest products particularly in reference to lumber at the commencement of the year was a continuation of the downward trend so noticeable during the previous year. However, after logging started in the late fall there was a definite improvement in demand but not so marked in price. Thus production of lumber and plywood turned out to be considerably more than anticipated in spite of a heavy snowfall over much of the Province which made operating conditions more difficult. Major operations in those on the pulpwood lease under management to North Western Pulp & Power Ltd.

##### (a) Annual Operating Plans

Operating plans are required to induce better management and to facilitate supervision of operations in harvesting timber. It is the principal tool of the Forest Service in controlling activities on leases, particularly such as those to North Western Pulp & Power Ltd. and the Muttart Tree Farm. Besides, conditions of sale of 129 licence timber berths require that annual operating plans be submitted before operations commence. Approval was granted for 71 plans submitted by operators.

Again the quantity and quality of plans from lumber operators has improved over previous years. Annual operating plans from operators other than lessees are now required at least one month before operations commence rather than on October 15 of each year. This change will enable the licensee to plan operations where contracts are known and will require a plan for summer operations before October 15.

##### (b) Log Scaling

During the past year 85 licence timber berths or special timber

permits were on log scale. Of these 48 were active. Plywood and saw-log volume scaled was 113,176,365 F.B.M. Pulpwood volume scaled on the North Western Pulp & Power Ltd. lease area was 186,987.58 cords.

One hundred and thirty-eight check scales were submitted during the season and a total of 30,659 cords of pulpwood were check scaled.

Scaling exams were held at seven locations in the Province with 142 candidates sitting for exams. Of these 47 failed to obtain the required pass mark. Eight classes of two days duration were held to prepare candidates for scaling exams.

#### (c) Woods Inspections

Woods inspections showed an increase over previous years; 1,452 inspection reports were submitted to head office during the operating season.

#### (d) Tree Scale

To date 28 berths have been placed on tree scale. Records show that six berths have been cut out. The cruise volume of the 6 berths was 6,365,319 F.B.M. The manufactured volume was 6,902,384 F.B.M., an over-run of 8.4%. The over-run is largely due to the utilization of small tops, small trees and cull logs, regarded as unmerchantable under the regular system of dues on sales or log scale.

The total volume sold to date on tree scale is approximately 155 million feet board measure.

#### (e) Audit (see timber audit zone map)

During the fiscal year the audit staff commenced 132 audits, completed the field work on 131 and finalized and reported on 135. These audits involved 389 licence timber berths and 36 special timber permits with a volume reported on returns of 336,662,516 F.B.M. of lumber, 4,067,072 lineal feet of round timbers and 249,272.18 cords of pulpwood while in the same audits the volume of purchased forest products included 37,421,650 F.B.M. of lumber, 2,684,000 lineal feet of round timbers and 5,454.53 cords of pulpwood.

To cross examine the audits 162 purchase checks were commenced, 166 had the field work completed and 167 were finalized and reported on. The purchase checks had a volume of 67,229,384 F.B.M. of lumber and 1,883,220 lineal feet of round timbers.

The following under-reports were disclosed:

	Under-report Manufacture	Under-report Sales
Lumber, F.B.M.	3,862,289	11,108,495
Round Timbers, L.F.	515,137	852,372
Pulpwood, cords	70.50	605.04
Lath, pcs.	281,350	281,350



The dues on the under-reported sales of forest products calculated at the regulation rate is \$51,000. Although the under-reports are larger than last year the regulation rate of dues was reduced during the year therefore the value is less.

A mill net survey was conducted during December, 1961 for the period June 1, 1961 - November 30, 1961. The records of 22 planer mills were examined with a volume of 24,052,478 F.B.M. of Alberta sales and 47,774,170 F.B.M. of export sales. The lumber was valued at \$3,984,209.69 for a mill net average of \$55.33. The volume total was 71,826,648 F.B.M. and was 46% of the total lumber reported on returns for the period.

Seizures, truck checks and other miscellaneous duties related to audits were undertaken.

## 2. Silviculture Section

### (a) Seed Bed Treatment (Scarification)

During the year some 4,113 acres were scarified by the Alberta Forest Service. The work was primarily on old burns with some old cutovers included.

### (b) Seeding

Since a natural seed source was not available for the above acreages the areas were spot seeded, primarily to spruce. The total seeding carried out was 3,476 acres (approximately 1,000 acres were seeded after a recent burn).



A shoot from a Spruce seed breaks  
the surface of the earth

## (c) Seed Collection

Approximately 2,506 bushels of cones were collected during the year. This total consists of primarily spruce and lodgepole pine, with some Douglas fir. Again, the collections were concentrated from areas having good phenotypes. All seed is being held in cold storage for future reforestation purposes.

## Scarification, Seeding, Cone Collection and Planting

Divisions	Scarification (acres)	Seeding (acres)	Cone Collection (bushels)	Planting
Peace River	1,300	650	220	9,500
Grande Prairie	376	40	174	9,000
Slave Lake	487	487	12	10,000
Whitecourt	620	1,372	351	73,000
Lac La Biche	480	25	61	
Edson	315	315	707	3,000
Rky. Mtn. House	495	495	673	10,000
Bow River				5,400
Crowsnest	40	92	308	5,500
Totals	4,113	3,476	2,506	125,400

## (d) Planting

Planting took quite an upswing during the past year with 125,400 seedlings being put into the various Divisions. The number of seedlings being planted each year will be increasingly larger.

## (e) Nursery

Plans in cooperation with the Department of Agriculture have been finalized for the production of trees for Forestry purposes. In the 1964 planting season some 1,000,000 trees will be ready for our use. These seedlings will all be 3-0 stock which have been very successful during the past few experimental years.

## (f) Research

Through continuing liaison with Federal Forestry and Science services various cooperative projects have been initiated which will be very beneficial to future work.

## 3. Timber Sales and Accounting Section

The high lights of the work connected with this section are as follows:

On May 1, 1961 and as a direct result of the unstable market conditions, the dues on sawn lumber of a species other than poplar and balsam fir were reduced from \$5.50 per M. F.B.M. to \$5.00 and, effective as of August 1, 1961, a further reduction to \$4.15 was authorized. This rate was again reviewed for the six month period ending January 31, 1962, however as no change appeared justified the \$4.15 rate of dues remained in effect as of March 31, 1962.

Despite the inclement weather during the major portion of the operating season when the timber operators were subjected to severe cold and above average snowfall, the value of timber products manufactured increased from \$20,122,316.00 to \$22,236,880.00.

One hundred and twenty-nine timber licences were offered for sale. One hundred and five of these were sold and twenty-four have not been disposed of. The volume of timber offered for sale was 636,876,000 F.B.M. coniferous timber and 17,648,000 F.B.M. deciduous timber. Two hundred and twenty-six applications were received for timber licences and 75 applications were submitted for special timber permits.

During the period under review, in addition to the 4,075 miscellaneous timber permits that were issued, there was a total of 548 operations in existence consisting of 510 timber licences and 38 special timber permits. This is an increase of 21 as compared to the previous year.

The attached comparative charts and tables show in summary form timber operations on public lands in recent years.

#### 4. Forest Management Implementation Section

The work of this section consisted of reviewing and analyzing the first management plans submitted by North Western Pulp & Power Ltd. for their pulpwood lease. Setting up of production records by management units for licenced berths, leases, etc., has been a time consuming job, with the aim of selling timber in a more orderly manner in accordance to a plan for the unit and to the allowable cut. So far, the Alberta Forest Service has four detailed plans for implementation. Other important management units are being controlled by temporary cut control plans. A study was implemented, in cooperation with engineers of the Department of Health, to determine the effects of sulphur dioxide emitted from two sulphur recovery plants located in the forested area.

An agreement expected to provide progressive improvements in forest use practices was signed on April 25, 1961 with Rocky Mountain Holdings Ltd. whereby they were given the right to take over the management of the forest as a tree farm on some twenty square miles of non-agricultural lands adjacent to Highway 16 west of Edmonton.

#### 5. Forest Land Use Section

During the year, this new section assumed an increasingly important role in the control of land uses in the Forest Zone of the Province. The appointment of additional office and field staff made it possible to more closely supervise and control the operations of the oil and gas industry in the forest area. Other forest land uses receiving increased attention included the grazing of domestic animals and a variety of other commercial enterprises.

### (a) Oil and Gas Industry

Supervision of this activity was carried out only during the last half of the year, after the new positions were filled. During this period 458 applications for surface rights were checked in the office using maps and aerial photographs with the objective of keeping to a minimum destruction and disturbance caused by clearing for wellsites, roadways, pipelines, etc. When necessary, applications were checked in the field. Field staff also undertook a large number of inspections dealing with the disposal of debris resulting from operations in the forest which must be conducted in accordance with the requirements of forest protection legislation.

### (b) Grazing

#### Rocky Mountains Forest Reserve

Increased demand for summer grazing resulted in the use of several range allotments which were formerly vacant. Total actual use in animal months in the Forest Reserve increased about 4%.

Range conditions remain generally good in spite of the prolonged drought period during July and August.

The degree of utilization was higher than normally desired during the first part of the season but nearly all range made satisfactory growth later in the summer.

Cooperation between permittees and Forestry personnel was excellent during the 1961 season. The basic principles of range management, standards of condition and a multiple use policy established by the Alberta Forest Service are now generally accepted by those grazing livestock in the Reserve. Corrective action was taken in several allotments where overgrazed range was not improving at an acceptable rate. Preference reductions were made in several instances and improved management practices introduced in others.

The P. F. R. A. continued the installation of watering troughs and dugouts. The total of such projects completed is now 59.

Other improvements consisted of "texas" gates, drift fences and boundary fences.

A total of 18 range allotments were resurveyed and remapped during the summer, most of this being in the Porcupine District of the Crowsnest Forest. At the present rate, each allotment will be resurveyed every five years. A new range management plan was written for each allotment resurveyed. The plan contained estimates of carrying capacity, recommendations for proper use, assessment of range condition and certain minimum requirements to which the users must adhere. Taken into account are other factors such as recreation, use by big game animals, etc.

#### Other Forest Divisions

Grazing in the forest area other than the Rocky Mountains Forest Reserve is carried on mainly under grazing leases and permits issued by the Lands Division. A number of the leases are held by grazing as-

sociations and are operated as community pastures. In the forest area there is also one provincial grazing reserve in the Wanham District of the Grande Prairie Forest Division.

The Forest Land Use Section participated in the administration of grazing by taking part in field inspections as time permitted, checking inspection reports and generally developing policies for the control of grazing to provide for efficient utilization of forage while at the same time co-ordinating grazing with other forest land uses.

## GRAZING

## ROCKY MOUNTAINS FOREST RESERVE

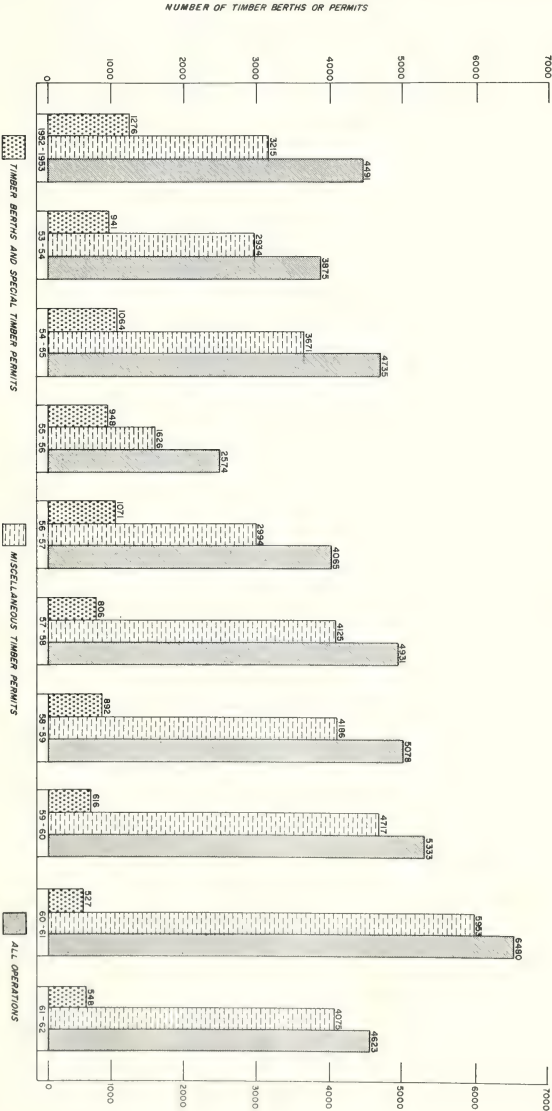
	Crowsnest Forest		Bow River Forest		Clearwater Forest		Total RMFR	
	1960	1961	1960	1961	1960	1961	1960	1961
Cattle	13,695	14,096	7,871	8,496	519	605	22,085	23,197
Horses	35	-	397	378	363	214	795	592
Sheep	812	1,039	-	-	-	-	812	1,039
Total Animals	14,542	15,135	8,268	8,874	882	819	23,692	24,828
Animal Unit Months	48,335	47,278	30,085	33,719	3,232	3,954	81,652	84,951
Revenue	40,573.25	34,432.51	23,280.05	23,963.40	1,756.58	2,334.34	65,609.98	60,730.25
Number of Permits	188	184	79	87	31	33	298	304



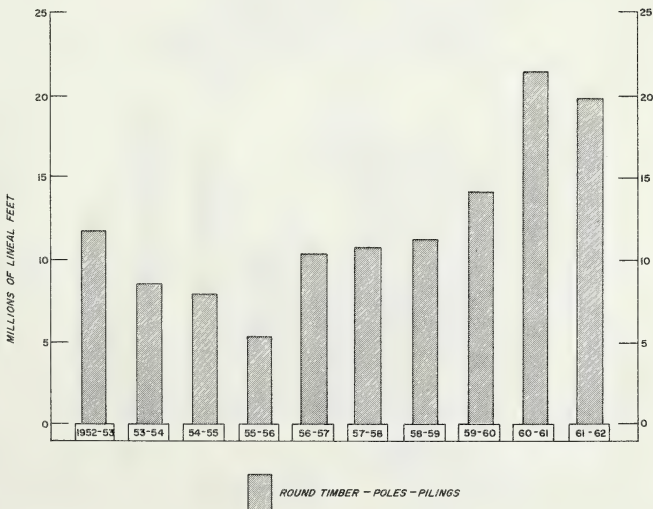
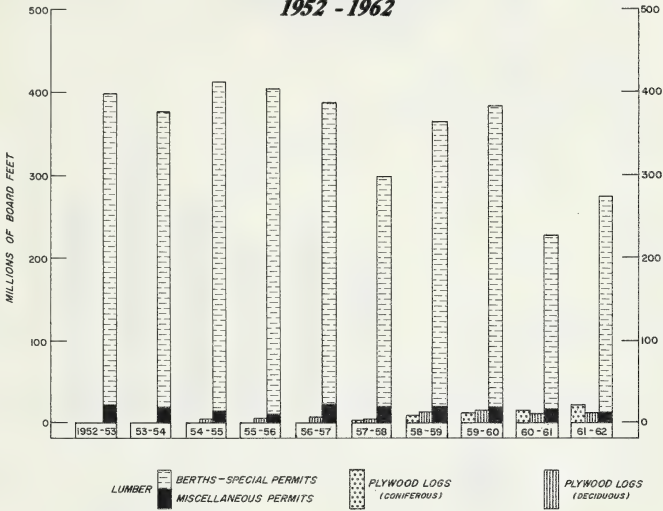
## SUMMARY OF TIMBER OPERATION ON PUBLIC LANDS

	Timber Berths and Special Permits		Miscellaneous Timber Permits		TOTAL	
	1960 - 61	1961 - 62	1960 - 61	1961 - 62	1960 - 61	1961 - 62
Number of Active Operations						
Christmas Trees	527	548	5,953	4,075	6,480	4,623
Fuelwood (cords)	2,073	100	23,466	16,970	25,539	17,070
Lath (pieces)	1,315	335	18,971	8,085	20,286	8,420
Lumber, F.B.M.	1,372,600	2,520,911	230,020	165,000	1,602,620	2,685,911
Mine Ties (pieces)	225,646,507	275,408,999	16,986,143	12,822,426	242,632,650	288,231,425
Pulpwood (cords)	13,641	27,021			13,641	27,021
Plywood Logs, Poplar (F.B.M.)	274,168	247,972	52,485	23,263	326,653	271,235
Plywood Logs, Coniferous (F.B.M.)	6,239,951	9,207,862	1,855,000	3,657,156	8,094,951	12,865,018
Railway Ties (pieces)	10,881,891	20,191,608			10,881,891	20,191,608
Round Timber (lineal feet)	419,785	210,864	300		420,085	210,864
Shingles (pieces)	3,000,845	4,862,297	19,759,722	15,008,658	22,760,567	19,870,955
Slabs (cords)				25,005		25,005
Timber Seizures		467		12		479
Custom Sawmill or Planer Permits (number)		4	40	42	40	46
			209	227	209	227

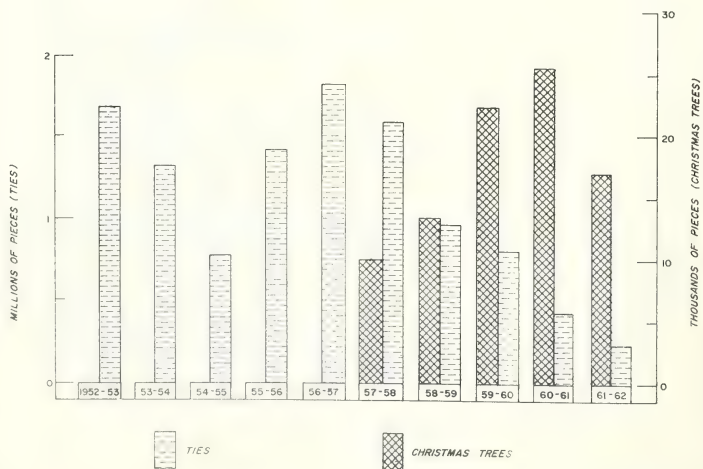
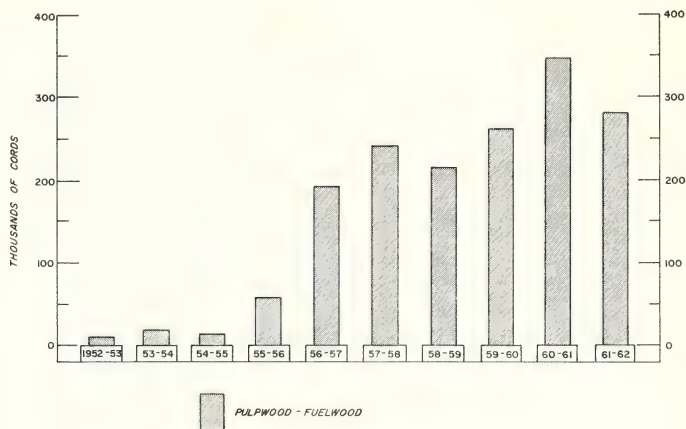
**CROWN TIMBER UNITS HELD UNDER LICENCE OR PERMIT  
TEN YEAR PERIOD  
1952 - 1962**

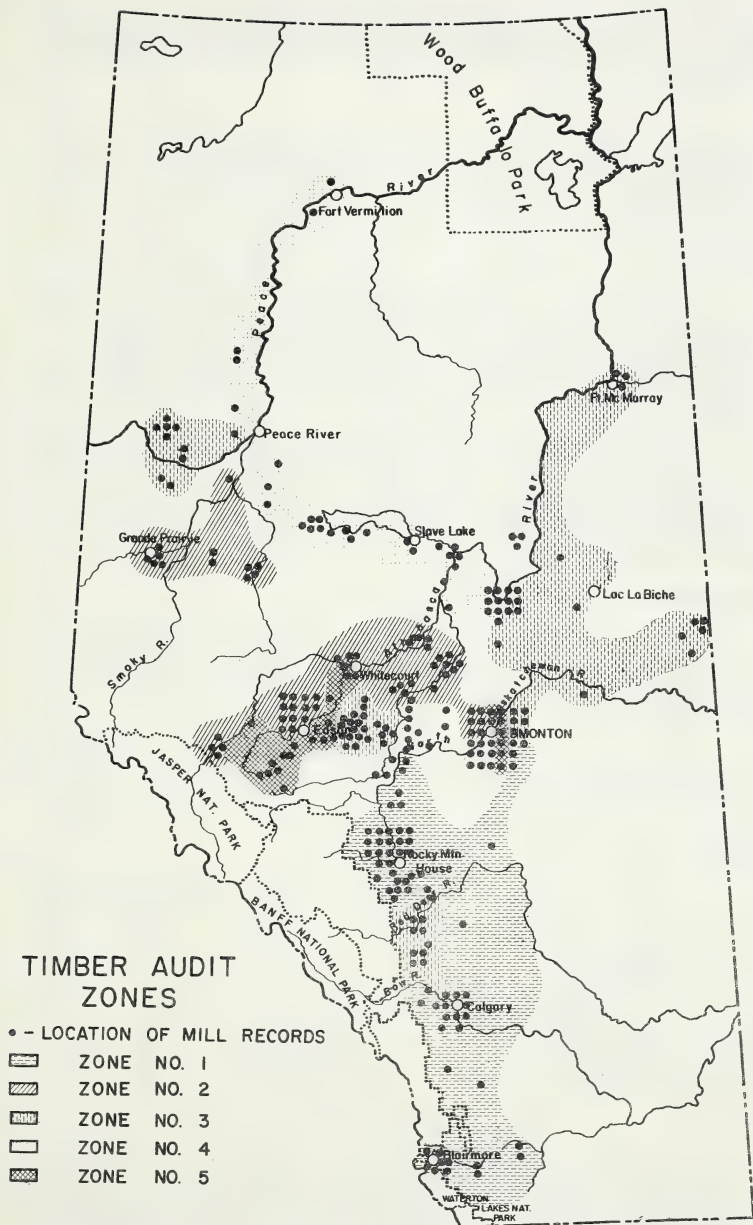


**FOREST PRODUCTS**  
**TEN YEAR PERIOD**  
**1952 - 1962**



**FOREST PRODUCTS  
TEN YEAR PERIOD  
1952 - 1962**







## RADIO COMMUNICATION

## Personnel:

It was found necessary to add two technicians to the staff to operate out of High Level and McMurray respectively as the increase in radio stations in the north made travel time from Peace River and Lac La Biche excessive.

Due to the heavy fire season, it was necessary to hire additional operators on wages at most stations including Edmonton to maintain a watch during the daylight hours to cover aircraft movements and handle all fire traffic.

## Equipment:

Seven fire base camp sets fully transportable were assembled in compact carrying cases. They consist of their own AC, gasoline power generators and medium power radio sets to work into the Divisional Headquarters, into the aircraft network and provide a control station for the fire frequency portaphones. These stations are installed by the divisional technician.

A VHF portaphone powered by dry batteries in an enclosure heated by a propane lamp was installed at Baldy to provide winter communication with Upper Saskatchewan Ranger Station. This type of repeater could well have a very useful function in providing communication for fires in inaccessible locations.

## Installations &amp; Maintenance

The major installation carried out this year was the changeover of the Edson Division from medium frequency to VHF. This involved the installation of 11 towers, 12 ranger stations, 8 mobiles and the provision of portaphones.

In addition, due to the delay in the installation of the permanent VHF system for Whitecourt, a temporary system was set up to improve communications for the fire season.

## Power Plants

Type	No. in Service	Shop Overhauls
10KW Diesel	12	7
5KW Diesel	6	2
5KW Gasoline	3	3
3. - 3.5 KW Gasoline	20	12
1.5 KW Gasoline	7	7
1 KW Gasoline	107	60
DC 500W	51	6
	206	97

There are two engine mechanics to service all the above plants for both shop overhaul and field overhaul. The divisional mechanical foreman aids in the field on ranger station power plants. These plants averaged 302 hours per month per plant or a total of 3620 hours per year.

The radio technicians in the fieldaid in the maintenance adjustment and installation of tower power plants.

In all, the Edmonton staff made thirteen inspection and maintenance trips covering 42 service calls at ranger stations. This involved 9,802 miles travel of which 7,004 were by truck, 1,704 by air and 1,094 miles by rail.

#### Operations:

It was felt necessary to re-evaluate the teletype circuit due to congestion during the heavy fire period. It was decided to install a semi automatic system which is capable of transmitting at 60, 75 or 100 words per minute via tape, which is prepared prior to transmission so that preparation of the message will not "tie up" the circuit. It should provide a reserve for the necessary expansion of traffic facilities as required by utilizing the higher speed of transmissions.

In January it was decided that engineering, equipment purchase, installation and maintenance of the radio system would be transferred to Alberta Government Telephone effective March 31st, 1962. This included the transfer of most of the technical staff. To this end meetings were held between Forestry Personnel and Alberta Government Telephones to draw up an agreement covering the operation and transfer of the capital assets of the Radio Branch.

Attached is Appendix "A" covering radio maintenance and Appendix "B" covering a summary of traffic handled by the network.

#### RADIO MAINTENANCE REPORT

##### APPENDIX "A"

	Service trips	Mobiles serviced	Portables serviced	Mobiles installed	Rgr. Stns. installed	Towers installed	Miles trav.
Crowsnest Bow River Clearwater Rocky	280	167	39	37			38,236
G. Prairie	105	21	59	11		1	10,305
P. River	109	13	62	8	3	2	18,499
Edson	126	12	65	12	12	12	13,061
Lac La Biche	71	27	73	7	3	4	6,252
Whitcourt	25	4	10		1		1,436
Slave Lake	89	11	106	2	5	2	11,589
Edmonton	36	33	148	7			14,604
Total	841	288	562	84	24	21	113,982

## SUMMARY OF THE YEARS OPERATIONS 1961-62

## APPENDIX "B"

## LOOKOUT STATIONS:

Name	Engine Time Hours	Gas Used Gals.	Oil Used Qts.	Messages	Words
Adams Creek	250.5	41	5.0	56	1,470
Algar	578.0	94	12.0	79	3,201
Ansell				1,599	39,253
Athabasca	2,012.8	410	37.0	2,998	64,982
Bald Mtn.	1,385.0	153	16.0	79	2,457
Battle River	475.5	60	6.5	446	7,503
Berland	812.0	187	15.0	557	10,854
Birch Mtn.	758.5	124	25.0	152	6,174
Brazeau	1,065.0	284	22.0	624	12,361
Buffalo	1,340.2	227	23.0	543	10,965
Carrot Creek	1,220.6	243	19.0	643	15,314
Chinchaga	1,228.0	180	13.5	480	8,836
Chisholm	906.8	218	17.5	2,058	50,601
Clear Hills	650.3	98	7.3	449	8,072
Codesa	1,552.7	267	27.0	111	3,067
Conklin	653.7	104	8.5	74	3,811
Copton	1,048.8	171	21.0	66	2,366
Cowpar	791.4	149.5	21.5	93	3,691
Deadwood	288.0	46	5.0	503	9,784
Doig	443.5	86	7.0	468	9,037
Doucette	477.3	141	17.0	417	6,047
Eagle				528	10,353
Economy	1,584.3	243	21.0	79	2,638
Ells	311.0	59	11.0	94	3,540
Flattop	860.0	167	13.5	413	5,899
Goose Mtn.	1,394.9	280	30.0	464	9,122
Grave Flats	566.9	90	9.0	385	6,352
Hawk Hills	65.1	18	2.0	14	647
Heart Lake	843.5	116.5	12.0	62	2,508
House Mtn.	787.3	178	13.5	452	7,237
Huckleberry	578.5	126	7.0	2,347	60,859
Kakwa	1,677.8	240	14.5	75	2,334
Keane	379.3	104	8.0	76	3,247
Keg	345.4	50	4.0	458	8,133
Lovett	563.7	130	14.0	1,147	21,268
Luscar				20	467
Marten Mtn.	112.3	24	4.0	2,735	69,764
May	600.0	122	15.0	66	2,727
Mayberne	932.5	221	23.0	493	8,405
Moberly				35	808
Muskeg	546.9	86	7.0	136	4,814
Naylor Hills	662.3	93	11.0	489	8,736
Nose Mtn.	154.2	20	3.0	53	1,752
Notikewin	476.3	85	8.0	477	8,707
Obed	1,222.5	306	14.0	461	7,351
Pass Creek				537	10,382
Pelican	611.4	101.5	12.0	69	2,340
Pimple				640	14,283
Pinto	1,103.0	170	11.5	56	1,711
Primrose				69	2,257
Puskwaskau	1,219.2	160	12.5	92	2,945
Red Earth	454.0	113	8.0	391	5,293
Richardson	458.0	72	13.5	128	4,855
Round Hill	451.1	68	10.5	68	2,759
Salt Prairie	640.3	170	10.0	434	6,485
Sand River	513.5	116	15.0	78	3,097
Seaforth	699.0	188	19.0	389	5,440
Simonette	981.0	236	15.0	494	8,696
Smoky	637.0	117	6.0	95	2,520
Snuff Mtn.	1,019.0	177	12.0	125	4,101
Stony Mtn.	746.8	104.5	19.0	86	3,720
Swan Dive				551	10,830
Sweathouse	720.9	185	18.5	401	5,467
Teepe	588.4	140	9.5	411	6,071
Thickwood	584.0	93	8.0	103	4,291
Tony Creek				703	16,923
Trout Mtn.	571.5	117	11.5	410	5,902
Watt Mtn.	1,680.1	213	23.5	501	9,442
Whitecourt	724.7	120	8.0	3,400	59,784
Whitefish	520.0	76	13.0	401	5,472

Name	Engine Time Hours	Gas Used Gals.	Oil Used Qts.	Messages	Words
White Mtn.	556.6	85	14.0	176	5,383
Whitemud	502.9	82	6.0	4,551	113,392
Winefred	431.1	76	7.0	80	3,631
Wolf Lake	350.0	60	9.0	439	6,555
Yellowhead	644.5	160	10.0	463	7,488
Zama	541.0	74	8.0	448	7,843
	50,552.3	9,316	880.3	40,843	886,872

## SUB HEADQUARTER STATIONS:

	Messages	Words
High Level	109	2,770
Hinton School	446	9,660
McMurray	4,675	139,864
	5,230	152,294

## HEADQUARTER STATIONS:

	Messages	Words
Blairmore	5,574	110,764
Calgary	11,821	302,084
Edmonton	50,831	1,723,939
Edson	11,254	353,839
Grande Prairie	6,458	211,299
Lac La Biche	11,857	430,170
Peace River	12,537	482,187
Rocky Mtn. House	9,537	247,634
Slave Lake	10,596	347,497
Whitecourt	15,000	483,203
	145,465	4,692,616
Lookout Totals	40,843	886,872
Sub H.Q. Totals	5,230	152,294
GRAND TOTAL	191,538	5,731,782

# FISH AND WILDLIFE ADMINISTRATION

Report of the Director of Fish and Wildlife

CURT P. SMITH

## ADMINISTRATION

Following the retirement of H. B. Watkins, Superintendent of Commercial Fisheries, the work of that branch was absorbed by the Fish and Wildlife Division. By this measure the policy of aligning field officer duties with the principle activities in a district becomes more widespread and provides improved supervision to all phases of fish and wildlife administration in many Alberta districts.

On January 15, 1962, W. W. Bell, District Officer at Claresholm, resigned to begin a new career in Kelowna, B. C. The staff wish he and his wife every success and happiness in their new venture.

## FISH AND WILDLIFE OFFICER'S SCHOOL

Annual training school classes are providing current knowledge in all phases of conservation to Fish and Wildlife field staff. Over two-thirds of staff has successfully completed the course and a new schedule of advanced courses is being designed to provide the necessary education for the increasing responsibilities of field staff.

The Division again expresses its appreciation to the school personnel and the Director of Forestry for the excellent facilities provided at Hinton.

## SEASONS AND HUNTER INTEREST

Drought continued in many Alberta regions, necessitating another reduction in waterfowl limits. Water areas have been reduced in areas as far north as Leduc and Edmonton forcing waterfowl to use lands which, a few years ago, were considered unfit for duck production. On the other hand, extension of agriculture into the north and changes in habitat effected thereby has brought some new areas into waterfowl production.

Game bird licence sales dropped, possibly because of the reduction in waterfowl bag limits; however, native upland birds were abundant and success unusually high. Upland bird resources remained relatively unharvested and, due to population behavior patterns, these abundances may not be present in the next few years.

## WILDLIFE DAMAGE INSURANCE

The Wildlife Damage Insurance plan was inaugurated in 1960-61 and met with little response. This scheme, requiring the insured to pay premiums at 3% of the insured value of crops, offers some respite for farmers who sustain losses to game birds or game animals. The premiums do not attempt to provide for loss payments; these are made up by an additional \$1.00 assessment against resident big game and game bird licences. The insurance was not intended to pay for shot cattle or other acts of vandalism, but merely for the protection of farmers who have crops standing, stacked or lying swathed in the field. It is hoped that in future years farmers will make use of this opportunity for protection of crops.



## ALBERTA FUR PRODUCTION - SEASON 1961 - 62

## (WILD FUR)

	Total Number of Pelts	Average Value of Pelts	Total Value of Pelts
Badger	27	\$ 1.19	\$ 32.13
Beaver	46,759	11.75	549,418.25
Ermine	32,836	1.16	38,089.76
Fisher	125	6.08	760.00
Silver Fox	15	2.75	41.25
Cross Fox	173	2.31	399.63
Red Fox	400	2.29	916.00
White Fox	39	15.36	599.04
Blue Fox	1	6.50	6.50
Lynx	17,764	8.00	142,112.00
Marten	500	8.58	4,290.00
Mink	7,732	12.16	94,021.12
Muskrats	236,315	.80	189,052.00
Otter	37	16.71	618.27
Jack Rabbits	30,081	.38	11,430.78
Skunk	68	.36	24.48
Squirrel	1,149,995	.31	356,498.45
Coyote	3,146	2.15	6,763.90
Timber Wolves	64	17.82	1,140.48
Wolverine	9	16.86	151.74
	1,526,086		\$ 1,396,365.78

## ACKNOWLEDGMENTS

The Fish and Wildlife Division wishes to express its sincere thanks and appreciation to:

The staff of all co-operating government agencies for their assistance during the past year; the R.C.M.P. for their attention to enforcement; the members of the Game Advisory Council and their parent bodies for the guidance they have offered toward designing conservation legislation; the Fish and Game Association for constructive criticism and, the many sincere and conscientious sportsmen, who strive to maintain the ethics of outdoor recreation.

## SPORT FISHERIES MANAGEMENT AND RESEARCH

The current year was marked by a very warm, dry summer. Water levels in streams and lakes in the south and central parts of the province continued to decline. This lowering of levels coupled with many consecutive days of bright sunshine, produced heavy plankton blooms and profuse growths of rooted aquatic vegetation in many lakes. These growths created problems on beaches of resort lakes and for trout fishermen on the shallower types of pothole lakes. They also create conditions favourable for winter kill.

In general, the small trout lakes continued to provide a good deal of angling especially in the southern portion of the province. Some streams have shown effects of low water levels but fishing success measured at creel census stations remained at a satisfactory level in most areas.

The sale of angling licences declined from the previous year's record high of 138,837 to 119,773. This represents a drop in sales of some 13.7 per cent.

The biological staff in sport fisheries was increased by one, thus bringing the number of field biologists in this phase of fisheries work to three.

## STREAM STUDIES:

Experiments to determine the percentage of catchable sized hatchery trout taken by anglers, were conducted on two East Slope streams in 1961. The Carbondale River was used as a study stream for the third consecutive year and a new study was begun on Jumping Pound Creek to secure information on hatchery trout returns from a stream near a large center of population, namely: Calgary.

Carbondale experiment - A creel census station was operated on the main access road to the Carbondale River from May 18th to September 15th. This station obtained information on: (a) the general fishing success in the Carbondale River; (b) the per cent recovery of 4,000 hatchery trout planted in the stream during the summer; (c) recovery of hatchery trout planted during the two previous summers, and (d) the movements of Rocky Mountain whitefish as indicated by the return of tagged specimens.

General fishing success in the river rose to approximately 1.5 fish per hour - the highest recorded during three summers of observation. Twenty-five per cent of the hatchery trout released in the stream during July were recovered during the census period.

Returns from the third experiment were, therefore, intermediate between the 33 per cent recovery recorded in 1959 and the 14.3 per cent recorded in 1960. A further recovery of 0.1 per cent of the 1959 planting of hatchery trout was recorded during the year under review. This brings the total known recovery of 1959 hatchery trout to 39.7 per cent. An additional 2.2 per cent of the 1960 experimental trout was also taken by anglers in 1961, thus bringing the total known recovery of this group to 16.5 per cent.

After three years of experiments involving recovery of hatchery trout in the Carbondale River, it appears that anglers can be expected to capture from 17 to 40 per cent of the number of trout planted.

It is of interest to note that a new marking technique for identifying the 1961 hatchery trout was employed. The fish were branded on the flank region with a small electrically heated branding iron. This marking method was successful as the "C" brand was distinctly visible on all 1961 hatchery trout which passed through the checking station. The brands did not appear to induce infection or fungus attacks.

Jumping Pound experiment - Four thousand fingerling rainbow trout were marked and planted in Jumping Pound Creek in July of 1960. In June 1961, 2,500 yearling catchable sized rainbow trout were also released into the stream. A creel census was conducted on the stream from May 25th to August 30th, 1961 to determine the percentage recovery by anglers in the two lots of hatchery trout previously referred to.

Returns of hatchery trout from Jumping Pound Creek were extremely low. Only 2.8 per cent of the yearling rainbow trout stocked during the season were taken and 0.2 per cent of the fingerling rainbow trout stocked in 1960 were recovered. It is not known why the returns on hatchery trout planted in this stream were much less than the returns on hatchery trout planted in the Carbondale River. Considering the proximity of Jumping Pound Creek to the city of Calgary, better returns on catchable sized trout might have been expected from this stream than from similar plantings made in the Carbondale.

General fishing success on Jumping Pound Creek during the summer was .5 fish per hour - the same as had been recorded in 1959. However, in 1961 the catch of trout increased while the catch of Rocky Mountain whitefish dropped very markedly. It seems probable that the latter species is transient in streams such as the Jumping Pound and populations may, therefore, fluctuate noticeably from year to year.

Gorge Creek experiment - Further experiments designed to test the effect of different diets on mortality of hatchery trout in streams, were planned and begun at the Gorge Creek Biological Station. Four hundred trout, 200 of which were fed on Encore diet and 200 of which were fed on Clarke's diet, were planted in each of two experimental enclosures in Gorge Creek.

In a matter of several days after the experiments were begun, a severe flash flood washed out the barriers which separated the experimental sections, causing the loss of an unknown number of trout. It was felt that it was then too late in the season to attempt to repeat the experiment and as a result, the fisheries work at the station was terminated for the year. This was the second major loss of experimental trout in twelve seasons of conducting mortality and survival experiments in Gorge Creek.

Rehabilitation work - A number of streams were treated with fish toxicant to remove species of fish which limit trout production in flowing waters. Chambers Creek (below Highway 11), Grace Creek tributaries to the Baptiste River and portions of the Blindman River were the streams on which reclamation work was conducted. Detoxification of fish killing chemicals is rapid in streams, thus permitting stocking of trout during the season of treatment. Checks on the Blindman River in the fall revealed repopulation of treated areas with pike. It, therefore, seems unlikely that a trout fishery will be developed in this stream.

Surveys - Census of fish populations in sections of the following streams was conducted by electrofishing: Stauffer Creek, Blocks Creek, Open Creek, Pekisko Creek and North Fork Sheep Creek.

Biological surveys on streams in the province were continued with emphasis on the Athabasca watershed. Streams in the recently developed Swan Hills area were examined and a number of tributaries of the Pembina were also surveyed. Other streams throughout the province were visited briefly for the purpose of determining stocking requirements of beaver dams.

#### LAKE STUDIES:

Beauvais Lake - The creek census station at Beauvais Lake was operated for the second season to determine the level of fishing success two years after lake rehabilitation. The period of census extended from May 7th to September 14th and some 14,584 trout were checked through the station during this time. Although this represents a total catch of about 6,000 more trout than were taken the previous year, angling success actually decreased from 1.1 fish per hour in 1960 to 0.7 fish per hour in 1961. In spite of a somewhat reduced rate of catch, anglers generally enjoyed another very successful season on Beauvais Lake.

Sibbald Lake - A second creel census to evaluate lake management practices was conducted on Sibbald Lake in the Calgary district. This was done in conjunction with Jumping Pound creel census station since angler traffic to both the lake and Jumping Pound Creek was required to use the same access road.

Sibbald Lake is a small shallow body of water subject to winter kill which, due to its proximity to a large city, is currently being stocked with catchable size rainbow trout. It was considered important to evaluate this type of stocking to ascertain whether or not a significant number of trout is being taken during the year of planting. The total number of angler trips to this lake was calculated to be 1,337 and the total catch calculated at 2,117 fish. At this rate an eventual harvest of about 58 per cent of the 1961 planting may be obtained. The fishing success of .34 fish per hour was considerably less than may have been expected from a five acre lake in this location.

Surveys - Eleven lakes previously unsurveyed were examined to determine their game fish potential. Miscellaneous visits were made to eighteen other lakes for such purposes as locating suitable waters for cut-throat trout brood stock, additional waters suitable for the introduction of golden trout, obtaining information on water levels and calculating lake volumes in preparation for reclamation projects. Gill-net tests were carried out to obtain information on fish populations in the following

lakes: Boehlke Lake, Chichako Lake, Cottage Lake, Mary Gregg Lake, Stevens-Wendell Lake, Moose Lake (17-35-6-W5), Peppers (Browning) Lake, Spray Reservoir, Glenmore Reservoir and Spruce Coulee Reservoir.

Rehabilitation work - The lake rehabilitation program was expanded over previous years. Undesirable fish species were removed from the following seven lakes by the application of fish toxicants:

Severn Reservoir - Toxaphene was used to supplement the 1960 treatment with rotenone because of incomplete kill on suckers. Restocking with trout was carried out during the 1961 season.

Cross Coulee  
Reservoir

- This reservoir was treated with toxaphene early in the spring to remove pike, suckers, whitefish and other coarse species. Flushing with irrigation water from Ridge Reservoir removed the toxic water in a short time, thus permitting restocking with trout during the current year. This project was designed to find out whether a reservoir located within an irrigation system could be successfully re-established as a trout fishery and if so, the duration of such a fishery.

P.F.R.A. Project  
(St. Mary's)

- This project consists of two small reservoirs constructed jointly by the P.F.R.A. and local Fish and Game Organizations. Treatment with rotenone was carried out to remove pike and restocking with trout took place following detoxification.

Henderson Lake - This lake was treated with rotenone to remove goldfish, pike, perch and a number of species of lesser importance. Trout were stocked following detoxification, but some difficulty was experienced due to unusually high pH values in the lake. Further stocking in the fall when lake temperatures and pH declined, was successful. It has been noted that a complete kill of goldfish was not achieved.

Fish Lake  
(19-40-15-W5)

Peanut Lake  
(58-3-W5)

Cavan Lake

- (30-11-3-W4) - These lakes were treated with toxaphene to remove various undesirable species of fish. They are expected to remain toxic for one to two years.

#### FISH CULTURE & STOCKING:

The trout hatchery and associated rearing ponds again operated at capacity. Yearling trout production at the Raven Rearing Station was the highest on record. Trout were stocked in approximately 165 locations throughout the province.

A second stocking of the exotic golden trout was made in Three Isle Lake and a new introduction of this species was made in a small mountain lake in the Galatea Creek drainage basin. This brings to three the number of lakes into which goldentROUT have been introduced. Yearling cutthroat trout were introduced into a lake in the Kananaskis watershed for the purpose of establishing a brood stock of this species. Kokanee (landlocked sockeye salmon) were introduced into Glenmore Reservoir in the City of Calgary. The latter represents a further attempt to introduce a better quality of game fish to a reservoir which at present provides little in the way of sport fishing.

Transfers of adult pike were made to three lakes in which the Division hopes to establish this species. Transfers of fingerling and yearling perch were made to four lakes and walleye eggs were stocked in six lakes in the province.

After the completion of yearling trout distribution for the season, the trout rearing facilities were completely rebuilt. This was done in order to improve the quality of materials in the pond dykes, to reduce maintenance costs and also increase yearling trout production at the station by an estimated 50 per cent. Early snows and wet weather delayed completion of the rebuilding project to some extent.

#### POLLUTION STUDIES:

A system of monitoring bottom fauna in the Athabasca River was devised with the assistance of Mr. T. W. Beak, Consulting Biologist. Some physical difficulties were experienced during the first winter. The program is being continued during the current winter. Bottom sampling was begun downstream from Whitecourt to Smith during the summer of 1961 so that a knowledge of biological conditions in the river will be available if further development of the pulp and paper industry occurs along the river.

#### Preliminary Biological Surveys of Alberta Watersheds Carried out in 1961

#### BARRHEAD DISTRICT -

Bear Creek  
Carson Creek  
Chickadee Creek  
Christmas Creek  
Clearwater Creek  
Doris Creek  
Freeman River  
Morse River  
Peanut Lake (Tp. 58-3-W5)  
Timeu Creek

#### BONNYVILLE DISTRICT -

Chatwin Lake (Sec. 3, Twp. 61, Rge. 6, W. 4th M.)

#### CARDSTON DISTRICT -

Ross Lake (Sec. 29, Twp. 2, Rge. 22, W. 4th M.)



## CASTOR DISTRICT -

Mattis Reservoir (Sec. 19, Twp. 31, Rge. 12, W. 4th M.)

## DRUMHELLER DISTRICT -

Michichi Reservoir (Twp. 29, Rge. 19, W. 4th M.)

## EDSON DISTRICT -

Bigoray River, Pembina tributary  
 Cadomin Pond (Sec. 32, Twp. 46, Rge. 23, W. 5th M.)  
 Coal Valley Lake (Sec. 25, Twp. 47, Rge. 20, W. 5th M.)  
 Coldwater Creek, Chip Lake drainage  
 Fairfax Lake (Twp. 46, Rge. 18, W. 5th M.)  
 Lobstick River, Chip Lake drainage  
 Maskuta Creek, Athabasca tributary  
 Paddy Creek, Pembina tributary  
 Poison Creek, Chip Lake drainage  
 Rat Creek and tributaries, Pembina tributary

## HIGH PRAIRIE DISTRICT -

Swan River

## PONOKA DISTRICT -

Chain Lake # 2 (Sec. 6, Twp. 42, Rge. 24, W. 4th M.)  
 Dempsey Morris Lake (Secs. 22 & 23, Tp. 43, Rge. 24, W. 4th M.)  
 Fink Lake (Sec. 6, Twp. 44, Rge. 25, W. 4th M.)

## ROCKY MOUNTAIN HOUSE DISTRICT -

Lasthill Creek  
 Nordegg Lake (Twp. 41, Rge. 16, W. 5th M.)

## Stocking to Angling Waters during 1961

Cutthroat Trout	14,880
Eastern Brook Trout	94,160
Golden Trout	12,610
Loch Leven Trout	144,510
Lake Trout	16,200
Rainbow Trout	1,616,802
Kokanee	336,600
Pickarel	2,740,000
Pike	12,578
Perch	78,200
	5,066,540

A complete list of stockings may be obtained from the office of the Director of Fish and Wildlife.

Commercial and Private  
 Game Fish Farm Inspections

The year of 1961 marked the advent of Private and Commercial game fish farming in the province. A system of licencing was instituted

to permit individuals or companies to establish such fish farms. All premises are subject to inspection prior to granting a licence in order that all conditions laid down by the Fish and Wildlife Division are met. Only trout species are permitted to be kept at game fish farms and these trout must be imported from outside the province under authority of an import permit. Three commercial game fish farms were licenced during the year under review. Those granted licences were:

E. V. Keith Enterprises,  
Priddis, Alberta.

Happy Valley Trout Farms,  
Calgary, Alberta.

Mr. H. J. Breen,  
Lethbridge, Alberta.

### COMMERCIAL FISHERIES

The commercial fishing industry experienced a considerable decline in production of fish from the peak production of the previous year. Total landings of all species were down from 16,719,900 pounds in 1960 to 9,263,496 pounds in 1961. Although the demand for tullibee as animal food was probably greater than in previous years, production of this species suffered the greatest decline. Pike catches compared favourably with those of the previous year and walleye (pickerel) production, though off somewhat, remained well above the past five-year average. Whitefish production declined to the pre-1958 level.

The sale of licences to carry on commercial fishing in the province also declined, probably as a result of the somewhat poorer fishing success.

It is of interest to note that the past history of commercial fish production in the province has been one of increasing yields over a six or seven period followed by a marked decline similar to that now being experienced. No immediate explanation can be advanced for this fluctuating pattern of abundance of fresh water species of fish which is apparently reflected in production statistics.

The bulk of exports of fish from the province was, as in previous years, absorbed by the United States markets.

Fishery surveys on commercial lakes were continued with some emphasis being placed on Cold Lake and an irrigation reservoir in the southern part of the province known as Grassy Lake or Sherburn Reservoir. The latter reservoir has maintained a particularly high yield of good quality whitefish for a number of years.

The appointment of Mr. M. E. Riske, M. Sc., to the staff as a biologist, raised to two the number of biologists on commercial fishery surveys and projects in the province.



GLENMORE RESERVOIR - CALGARY



Stocking fingerling trout in an Alberta lake

## WILDLIFE MANAGEMENT AND RESEARCH

The management of wildlife populations in the province during the fiscal year under review was the responsibility of a staff of five permanent wildlife biologists. Commendable assistance to management programs was provided by district Officers of the Alberta Forest Service and the Fish and Wildlife Division. These Officers, whose efforts are gratefully acknowledged, submitted pertinent information apropos the distribution, reproductive success, mortality, age and sex structure, and diseases and parasites of game bird and wild ungulate populations and assisted in the accumulation of data on other features of wildlife biology and ecology. They were also instrumental in gathering harvest figures during the 1961 hunting season.

Many facets of wildlife research and management were investigated and accomplished through the direct assistance of Canadian Wildlife Service, Ducks Unlimited (Canada) and U.S. Fish and Wildlife Service personnel. The continued cooperation of these agencies is greatly appreciated.

Significant contributions to the understanding of species' ecology and population dynamics were made by university students and staff at the Alberta Biological Station. This station, located at Gorge Creek, southwest of Calgary, and jointly financed and sponsored by the University of Alberta and the Fish and Wildlife Division, annually produces original research on both vertebrate and invertebrate animals. The 1961 research was summarized in the Alberta Biological Station report No. 12.

During the course of biological investigations, professional counsel, diagnoses and assistance were solicited from other interested agencies including the Veterinary Service Branch of the Provincial Department of Agriculture, the Departments of Botany, Entomology, Physiology and Zoology of the University of Alberta and the University Hospital, Edmonton. The co-operation of these agencies has been invaluable and thanks are extended for their interest and participation.

A network of bird and big game checking stations was again established during the hunting seasons. A total of seventy-seven temporary assistants was hired to operate these stations and collect biological information from hunters and their game. Additional students were hired during the summer to assist with field investigations on upland game bird and waterfowl productivity; and one student was employed to live-trap and band waterfowl in southern Alberta.

The dissemination of wildlife management and biological information was continued and expanded during the fiscal year. A total of fifty-two meetings, ranging from school-group gatherings to professional conferences, was attended by wildlife biologists who presented the facts, figures and ideas in support of current wildlife management and research programme.

Detailed information on the biology, ecology and distribution of wildlife in the province was inculcated at three Forestry Training School semesters attended by both Forestry and Fish and Wildlife Officers. The last of these semesters was designed to give firsthand experience in management and census techniques to field officers within the Fish and Wildlife Division.

In this report, summaries of biological investigations made during the fiscal year are presented in terms of big game zones and general regions are referred to as "sections" (Figure 1).

#### UPLAND GAME:

Blue grouse - A population study of blue (Richardson's) grouse initiated at the Alberta Biological Station in 1959 was continued in 1961. Examination of two study areas indicated a decline in numbers of sub-adult females increased over previous years. It appeared that excessive precipitation during the first two weeks after grouse chick hatching, was instrumental in reducing clutch survival and lowering grouse densities in the study areas.

The 86-day hunting season for these grouse coincided with the big game seasons in western aspects of the province.

Spruce grouse - Relatively mild 1960-61 winter conditions, good survival and unseasonably hot and dry spring weather resulted in an increase in spruce grouse throughout northwestern Alberta. The peak of hatching for this species occurred during the first two weeks of June. Mid-summer observations indicated an average brood size of 7.5 chicks and represented a thirty-six percent increase over the previous year.

Hunting pressure on spruce grouse by licenced hunters is characteristically low each year and is exerted primarily by hunters not residing in western and northern Alberta. Bag checks in the Peace River block showed that non-local hunters averaged 0.4 spruce grouse per trip in contrast to no birds per trip for local hunters.

A study to determine the distribution of Franklin's grouse in western Alberta was continued in 1961. Preliminary investigations have shown that this sub-species of spruce grouse is more extensively distributed along the mountain chain than existing literature indicates.

Ruffed grouse - Spring transect surveys indicated that ruffed grouse experienced high winter survival throughout the province. In northwestern and northeastern sections, low June rainfall and unseasonably hot weather favoured excellent grouse reproductive success. The peak of hatching in northern sections took place during the first two weeks of June and average brood sizes in July were 9.2 and 8.5 chicks in the northwestern and northeastern sections, respectively.

In central sections, winter carry-over of grouse was satisfactory and the spring breeding population appeared to be comparable with 1960. However, the peak of hatching was almost two weeks later than the earliest recorded peak and approximately twenty per-cent fewer chicks per hen were produced than in the previous year.

In southwestern sections, inclement June weather had a marked effect on chick survival and brood sizes. Mortality curves for grouse broods showed a rapid decline in brood size from mid-June to the end of July. September brood counts showed an average of two to three chicks.

Ruffed grouse, important members of huntable avifauna, constituted 35, 56 and 10 percent of the upland game bird harvest in the



northwestern, northeastern and central sections, respectively. Non-local hunters shot 2.4 ruffed grouse per trip compared to 1.7 per trip by local hunters. However non-local hunters spent over twice as much time in the field per grouse shot.

Fall age ratios, determined from the age composition of the bag, and indices of spring productivity and brood survival from hatching to hunting season.

In northwestern sections, 1.6 juveniles per adult grouse were harvested, while in northeastern sections somewhat better last summer survival of chicks is indicated by the recorded 2.7 juveniles per adult in the bag.

In 1961, a study designed to measure the level of courtship behaviour of male ruffed grouse during May and June, and to obtain data pertinent to grouse sex rhythms, was initiated at the Alberta Biological Station. Research of this kind will allow better assessment of current census techniques applied to male ruffed grouse in the spring reproductive season.

**Ptarmigan** - A study on the two species of ptarmigan native to Alberta -- white-tailed and willow ptarmigan -- was initiated in 1960 in order to increase the present-day knowledge of distribution, numbers, reproductive success and migration patterns of each species. It is also desired to determine the degree of overlap in the distribution of the two species.

Specimen collections, hunter-kill reports and field observations are producing a back-log of data which will soon provide the information necessary for effective management of these game birds.

**Sharp-tailed grouse** - Dancing ground observations and roadside transect counts throughout central and northern districts showed that sharp-tailed grouse exhibited a satisfactory 1960-61 winter survival. Breeding densities in these sections were as high as in the previous year and the hatching period, reaching its peak during the second week of June, was phenologically similar to 1960.

In central sections, sharp-tailed grouse productivity was again disappointing. Reproductive success in northern districts, where average brood sizes were 8.0 and 7.5 chicks in the northwest and northeast, respectively, was very satisfactory. On the shortgrass prairies, a small sample of observations showed the peak of hatching occurred in mid-June and the average brood size in July was 6.5 chicks.

Sharp-tailed grouse represented 61, 14, 12 and 2 percent of the upland bird harvests in the northwestern, northeastern, central and southern sections, respectively. In the north, non-local hunters required less time to bag their sharp-tailed grouse and shot almost six times as many birds as did the local hunters.

Examination of grouse at checking stations indicated a fall age ratio of 1.6 juveniles per adult sharp-tailed grouse in northern sections.

A study designed to investigate the courtship and mating behaviour of sharp-tailed grouse was completed in 1961. This research, done



under the direction of the Department of Zoology, University of Alberta in partial fulfillment for a Master of Science degree, has produced useful information on sharp-tailed grouse breeding, nesting and productivity, and species ecology.

In prairie-parkland habitat, grouse nests were most commonly found between one-eighth and three-quarters of a mile from the dancing grounds. Nests were usually located near open areas at the base of shrubs within fifty yards of aspen poplar stands. Slightly fewer than one-half of all nests examined successfully hatched. After hatching, broods tended to remain in shrubby and grassy nesting cover for approximately two weeks. Chicks over ten weeks of age had a greater mobility and frequented open wheat fields during the cooler periods of the day.

The choice of habitat by broods was related to temperature. Shade cover, provided by trees, was used extensively in July and early August when the temperature was high. Most chick mortality occurred during the first three weeks of life.

The study has allowed a comparison of sharp-tailed grouse habitat in the eastern parklands with habitat in the mixed forest region of northern Alberta.

Sage grouse - Sage grouse, the largest members of our native upland fauna, are limited in their distribution to the shortgrass prairies where abundant stands of sagebrush satisfy the requirements of food, breeding, nesting and loafing cover. This bird is found only in the extreme southeastern section of the province.

July observations indicated that the peak of hatching occurred at the end of May, and that the mid-summer average brood size was five chicks. Most of the broods were closely associated with spring and winter wheat fields which provided a portion of the summer food and cover requirements of this species.

Legal harvests of sage grouse have not been instigated because of the relative scarcity and limited distribution of this bird.

Merriam's turkey - The first introduction of wild adult Merriam's turkeys in the province was made in March, 1962. These turkeys, received from the Department of Game, Fish and Parks in South Dakota, in exchange for wild bighorn sheep, were released in the Cypress Hills in southeastern Alberta in what is believed to be one of the best blocks of habitat for this species that exists in the province.

Ring-necked pheasant - This popular upland bird has received much attention during the last decade. Early spring surveys were again extensively made throughout pheasant habitat in the province. Generally, pheasants experienced a high winter survival in all regions. Crowing-cock pheasant counts, which provide information on relative numbers of breeding cocks in spring, showed a general increase in numbers of breeding cocks.

Hatching peaks occurred during the first and second weeks of June in all regions, with some areas in southern sections showing a broad peak of hatch during the first three weeks of June.

A large sample of pheasant brood observations indicated that average brood sizes in mid-summer were approximately 6.5 chicks and 5.0 chicks in southern and central regions, respectively. In southern irrigation districts, where alfalfa is preferred for nesting cover, vegetative growth was phenologically earlier than in 1960, resulting in earlier alfalfa cutting and consequently greater hen pheasant mortality, nest destruction and desertion.

In the Eastern Irrigation District, pheasant nest density in mowed alfalfa fields was one nest per 8.7 acres of alfalfa. In contrast to results of similar studies in previous years, no hen pheasants were killed by mowers in the fields sampled.

Fall age composition of hunter-killed pheasants was 3.5 juveniles per adult cock in north-central sections. In southern districts, 9.3 juveniles per adult cock pheasant were shot. The best juvenile: adult cock ratio appeared in the Eastern Irrigation District where almost eleven juveniles per adult appeared in the harvest.

The early season species composition of the upland game bird harvest was 8, 65, 88 and 94 percent pheasants in the northeastern and central sections and the Western and Eastern Irrigation Districts, respectively.

Ring-necked pheasants, raised by the Fish and Wildlife Division at the Provincial Game Farm at Brooks, are released at selected sites twice annually. In 1961, a total of 516 adult hen and 56 adult cock pheasants was released at sixteen localities in nine general areas in June. In August and September, a total of 1,696 juvenile hen and 2,474 juvenile cock pheasants was released at thirty-six localities in eighteen general areas. All 4,742 pheasants were released at sites chosen by wildlife biologists on the basis of potential habitat suitability, resident pheasant densities and juxtaposition of urban centres. Most releases were made in the central section of the province.

A tabulation of the 1961 releases is given in Tables 1 and 2.

Sportsmen's groups annually purchase day-old chicks from the Provincial Game Farm at Brooks and raise these birds for later release. In 1961, a total of 1,975 pheasant chicks was purchased in this manner.

Studies on breeding-pheasant sex ratios were continued on the Provincial Game Farm at Brooks in 1961. Five banks of enclosures, each with ten breeding pens, were utilized to assess the effects of various adult pheasant sex ratios on egg production, fertility and hatchability.

A controlled experiment, initiated several years ago to determine the relationship between pheasant chick weight-gain and the percentage of protein in the diet, was continued. Commercial feeds, varying between 26 and 32 per cent in protein content, were fed to four groups of pheasant chicks for a period of six weeks. The weight-gain per unit of mash consumed during this period was recorded and is currently being assessed.

The upland game bird shelter belt programme has shown much promise as a method of creating pheasant habitat since the first organized plantings were made in the Edmonton district in 1958. Shelter belts

Table I

1961 Fish and Wildlife Division  
Adult Pheasant Releases

LOCATION	HENS	COCKS	TOTAL
Cold Lake			
18-63-2-W4	48	4	52
Bow Island			
18-11-10-W4	36	5	41
30- 9-11-W4	24	5	29
Calgary			
9-23-23-W4	10	1	11
21-23-23-W4	10	1	11
15-23-23-W4	20	2	22
28-25-24-W4	20	2	22
Olds			
17-33-4-W4	30	3	33
16-33-4-W4	30	3	33
Red Deer			
21-38-28-W4	30	3	33
Innisfail			
9 & 10-36-1-W5	30	3	33
19 & 20-35-1-W5	40	4	44
16 & 17-35-1-W5	40	4	44
Cardston			
26-2-26-W4	50	5	55
30-2-24-W4	50	5	55
16-1-23-W4	48	6	54

Table II

1961 Fish and Wildlife Division  
Juvenile Pheasant Releases

LOCATION	HENS	COCKS	TOTAL
Peace River			
32-75-16-W5	88	88	176
24-83-22-W5	112	112	224
1-73- 8-W6	56	56	112
28-74- 8-W6	48	48	96
3-78- 6-W6	48	48	96
4-78- 6-W6	24	72	96

Table II (Cond't)

LOCATION	HENS	COCKS	TOTAL
Pembina River			
30-54-6-W5	56	56	112
22-60-1-W5	48	48	96
Paddle River			
28-56-9-W5	48	48	96
Pine Creek (Athabasca)			
26-65-21-W4	48	48	96
Vermilion			
3-51-9-W4	70	86	156
17-54-14-W4	80	64	144
Beaverhill Creek (Edmonton)			
31-56-20-W4	89	73	162
4-56-19-W4	72	72	144
Sturgeon River			
15-55-22-W4	72	72	144
Markerville (Red Deer)			
20-36-28-W4	54	54	108
36-36-1-W5	48	48	96
18-36-1-W5	48	48	96
Todd Creek			
30-8-1-W5	24	24	48
18-8-1-W5	24	24	48
Olds			
14-28-3-W5	48	48	96
1-29-3-W5	48	48	96
22-29-3-W5	48	48	96
13-30-3-W5	21	72	93
7-33-2-W5	54	54	108
19-33-2-W5	48	48	96
33-33-2-W5	48	48	96
Hartell (High River)			
18-19-1-W5	54	54	108
13-19-2-W5	48	48	96
11-18-2-W5	48	48	96

Table II (Cond't)

LOCATION	HENS	COCKS	TOTAL
Medicine Hat			
21-10-7-W4		250	250
Calgary			
36-24-25-W4		144	144
28-25-24-W4		88	88
15-26-25-W4		128	128
Cardston			
26-2-26-W4	40	72	112
31-2-24-W4	30	93	123
Calgary Zoo			
	4	2	6

planted at this latitude are expected to produce pheasant habitat in fifteen to twenty years, but experience has shown that after only four years of growth, upland game birds are attracted by shelter belt vegetation.

Chukar partridge - Surveys made since the first chukar partridge introductions in southeastern Alberta in 1953 and 1954 have indicated that chukars initially experienced good winter survival and reproductive success. Live-trapping operations early in 1955 showed that these birds had experienced a fair degree of reproductive success and had moved considerable distances from their initial release sites.

Little data on chukars have been obtained since 1959. Surveys since then have failed to demonstrate that chukars are still residing in the province, and it must be concluded that the attempt at chukar establishment in the province has failed.

Hungarian partridge - A satisfactory carry-over of partridge occurred throughout the province during the 1960-61 winter months with the result that spring breeding populations appeared as good as in earlier years. The peak of hatching in southern districts, occurring during the second week of June, was in advance of the hatching peak in more northerly districts. August partridge broods averaged 12.1 chicks in southern and northwestern sections and 8.4 chicks in the northeastern section.

Hungarian partridge, exceeded in importance only by the pheasant, comprised 21, 14, 10 and 4 per cent of the upland bird harvest in the northeastern and central sections, and the Eastern and Western Irrigation districts, respectively.

Productivity and survival of chicks during mid-summer appeared somewhat low in the northeastern section. At hunter-check stations, only two juveniles per adult partridge were recorded in the bags of successful hunters.

Hungarian partridge, live-trapped and introduced into the Peace River Block in 1955, have successfully established themselves in this region. The birds are increasing and spreading from their initial release site.

The task of reviewing, compiling and co-ordinating a decade of partridge populations dynamics data was started in 1961. A complete document on the Hungarian partridge in Alberta is being prepared.

#### MIGRATORY GAME

Mild winter conditions and below normal precipitation in April resulted in low soil moisture reserves in southern Alberta in 1961. As early as May, waterfowl habitat began disappearing in southern and central sections of the province. Unseasonably high temperatures in late May and early June added to waterfowl habitat reduction. North of Township 43, spring water conditions were more favourable.

Aerial surveys in May indicated a sizeable decrease in total water bodies in almost all sections of the province. Breeding duck populations again declined in all regions except the northern parklands. All species of ducks, excepting blue-winged and green-winged teal, were present in



fewer numbers than in 1960. Pintails experienced the most drastic reduction in breeding population size. Low April temperatures were probably responsible for the relatively late nesting season in 1961.

Waterfowl hunting was exceptionally good in the Peace River area with hunters averaging 0.6 ducks and 0.2 geese per hour hunted. Hunters bagged an average of one goose and 2.8 ducks early in the season. In central and southern sections, success was noticeably lower. Hunter success was 2.4 and 0.3 ducks per hunter in the northern and southern parklands, respectively.

Mallards, pintails and gadwalls constituted the largest proportion of the waterfowl harvest in the northern parklands. In the southern parklands, mallards, pintails and baldpates were the three most important duck species in the total harvest. Of these three species, the baldpate showed the highest juvenile to adult ratio in the kill.

Investigation of the migration chronology of Ross's geese was undertaken in southern Alberta by means of bi-monthly aerial surveys. This study is continuing.

A study to determine the presence or absence of botulism in waterfowl in Beaverhill, Whitford, Rush, Smoky, Hay and Cygnet Lakes was conducted in late summer. The extent of waterfowl mortalities was indicated in shoreline surveys which showed that from 100 to 700 birds per mile of shore had died. Further evidence that botulism was the causative agent of death came from transmission tests with white mice. All unimmunized mice were killed with prepared duck sera. The bacterium responsible for causing botulism was isolated from mud samples collected at the infected lakes. The botulism study is being continued.

## BIG GAME

Mid-winter big game inventories via aerial surveys were conducted on selected winter ranges when suitable snow cover and climatological conditions prevailed. Pronghorn antelope were again censused by aerial transects in the shortgrass prairie regions in July and August (Figure 2).

The 1961-62 wintering conditions for wild ungulates were quite variable. In southern sections, little winter loss of prairie and mountain game animals was recorded. In central sections, winter conditions were more severe and moose, elk and deer mortalities were more significant. In addition to direct mortalities, many ungulates exhibited a high degree of winter tick infestation and many entered the spring period in a nutritionally unsatisfactory condition. In some sections, winter conditions adversely influenced reproductive success.

Notwithstanding winter mortalities, spring densities of game animals were as high or higher than in previous years.

Wapiti - Elk densities in zone 9 have been stabilized by a combination of range condition and hunting, but in zones 10 and 11, elk are showing an increase in numbers. In zones 12 to 16, elk numbers were similar to those for 1960-61. The basic elk herd in zones 3 and 4 was reduced some twenty per cent through hunting in 1961. In zones 12 to 16, the elk harvest increased twenty-one per cent over 1960. Wapiti kills constituted 41, 43 and 27 per cent of the big game harvest in zones 3 and 4, 9 and 10, and 12 to 16, respectively.

Deer - Mule deer kills constituted the bulk of the big game harvest in zones 1 to 8. The percentages of the big game harvest consisting of deer was 25, 28, 34 and 22 per cent in zones 9 and 10, 12 to 16, 17 and 20, respectively. In zone 21B, white-tailed deer made up 60 per cent of the harvest.

A zoo-geographical study of white-tailed deer, initiated several years ago, was continued. Data on distribution, taxonomy and population dynamics are presently being analysed.

Moose - The percentages of the big game harvest consisting of moose were 5, 32, 40, 66 and 78 per cent in zones 3 and 4, 9 and 10, 12 to 16, 17 and 20, respectively. The moose harvest increased 32 per cent in 12 to 16.

A study was started to determine the effects of hunting pressure on moose pregnancy rates in zones 12 to 18. This study is being continued.

Caribou - Annual harvests on caribou are characteristically small. A study to determine the distribution and the taxonomic similarities and differences between caribou in the province was continued.

Pronghorn antelope - A study to investigate natality, mortality and related phenomena in two populations of pronghorn antelope in southern Alberta was continued in 1961. Skull, eye lens, mandible, weight, paunch sample, uterus, embryo and testis collections were made during the scheduled hunting season in November.

Antelope were censused on a total-count basis in two study areas, and sample strip counts were made in other regions supporting somewhat fewer animals.

Antelope kid tagging was continued in the Eastern Irrigation District in May and June, 1961. Nine kids were captured and adorned with metal ear-flashers. This technique, utilized to increase knowledge on antelope movement, tooth wear and animal survival by age classes, will be continued.

The 1961 antelope either-sex season was again a success. A total of 2,500 antelope permits was issued on a random selection basis. A hunter questionnaire sent to 1,250 of the 2,481 hunters purchasing licences, indicated that 2,350 hunters actually hunted antelope. Hunter success during the season was an exceptional 92 per cent. The total estimated antelope harvest was 2,170 animals, of which 60 and 40 per cent were bucks and does, respectively.

Bison - In 1961, a research project under the direction of the Alberta Biological Station was established to study the social behaviour of bison in southwestern Alberta. This work was done in the bison enclosure in Waterton Lakes National Park. This study is continuing.

Bighorn sheep - Studies on bighorn sheep winter range, productivity and population dynamics in the Athabasca Special Area and in the Smoky River area were continued in 1961.

Bighorn live-trapping, immobilization and tagging operations were continued in the Sheep River district in southern Alberta. Twelve

ewes and two rams were handled in late March. Six of these animals were donated to zoos. Data on distribution, animal movements, growth rates, population turnover and range analysis are accumulating in this long term study.

Hunter questionnaires sent to bighorn sheep hunters and licenced guides indicated that a total of 215 bighorns were shot in 1961. Non-resident hunters accounted for 32 per cent of the bighorn harvest. In zones 12 to 16, bighorn sheep accounted for one per cent of the big game harvest.

Rocky Mountain goat - The mountain goat winter range study in the Smoky River watershed was continued in 1961 and the distribution and productivity of mountain goats was the object of a study in the Athabasca Special Area in western Alberta.

Hunter questionnaires indicated that a total of 181 mountain goats was harvested in the province in 1961. Non-resident hunters shot 36 per cent of all goats harvested.

In zones 12 to 16, mountain goats accounted for approximately two per cent of the big game harvest.

Table III

## 1961 Resident Big Game Harvest

Zone	Elk	Deer	Moose	Bighorn sheep	Mountain goat	Antelope
1	75	?	?	?	?	-
2	200	?	?	15	2	-
3 & 4	450	650	100	13	2	-
5	?	?	?	12	2	-
6	?	?	?	12	2	-
7	?	?	?	7	10	-
9 & 10	1,420	825	1,050	61	38	-
12	945	418	732	12	-	-
13	20	150	150	-	-	-
14	155	425	290	15	58	-
15	3	200	425	-	-	-
17 & 20	0	600	1,400	-	-	-
18	0	275	750	-	-	-
21 & 22						2,170

Table IV

Wild Ungulate Mid-winter Densities 1961-62, and  
Pronghorn Antelope Mid-summer Densities, 1961  
(No. of animals/square mile)

Zone	Elk	Deer	Moose	Pronghorn antelope
1	(550)*	?	?	-
2	(650)*	?	?	-
3 & 4	(700)*	(5,000)*	?	-
6	?	?	1.4	-
12	0.7	0.3	1.1	-
15	0.2	0.4	1.6	-
16		0.4	0.2	-
17		0.4	4.1	-
18	T	2.0	2.3	-
20		1.7	3.7	-
21 B		3.0	-	-
22				2.4 - 4.9**

\* - Estimated total number in zone

\*\* - Represents the range in densities in various management units in zone 22

T - Less than 0.1 per square mile

Table V

Hunter Effort  
Days hunted/animal shot

Zone	1958	1959	1960	1961
2 - 7	8.7	8.1	-	-
3 & 4				6.0
9 & 10	11.5	14.5	-	-
12 & 13	14.7	8.0	8.5	8.1
14	6.8	4.8	10.5	5.7
15			9.2	7.8
15 - 20	7.3	5.6	5.2	
17				6.5
20				6.5
21 B				7.2
22 *				0.5

\* - Data for antelope hunters only

A long-term study to determine the effects of harvesting white spruce, lodgepole pine and mixed deciduous - coniferous forest growth on wild ungulate numbers was continued in 1961. The results of the first five years of study recently appeared in the Forestry Chronicle.

Deer, moose and elk antler development and hog-dressed weights on various ranges in western Alberta was the object of a study established in 1960. This investigation is being continued.

Widespread but local mortalities in snowshoe hare populations in northern Alberta were investigated during the fiscal year. Data on

rabbit weights, ages, bloodglucose, adrenal activity and parasite loads in three areas are being compared.

The effectiveness of herbicides in controlling pocket gophers was studied on two plots in southern Alberta. This project was designed to determine if the change in density of broad-leaved vegetation would also induce changes in pocket gopher numbers, and if the removal or reduction of this vegetation had important effects on other small mammals. This study is being continued.

The four-year study of muskrat population ecology was completed in 1961. This study has provided information on productivity and mortality of muskrats in parkland habitat. Some data on the relationship of social structure and the ability of a muskrat population to survive winter conditions were also gathered.

A preliminary study of beaver productivity and population dynamics was started during the fiscal year. Collections of skulls, uteri and other biological specimens will be continued in 1962.

Interest and concern apropos parasites in birds and mammals continued during 1961. Wildlife biologists submitted forty-one specimens to the Veterinary Services Branch for analysis and identification. A formal study of parasite incidence was conducted at the Alberta Biological Station by the Department of Zoology, University of Alberta. A total of 158 animals was handled during this investigation. Fifty-three parasite species were found on birds and mammals examined.

#### Technical Publications

Author	Title	Source
Stelfox, J.G.	Effects on big game of harvesting coniferous forests in western Alberta.	Forestry Chronicle, March, 1962.



LYNX - An important Fur Bearer



A Mountain Sheep is tagged and released by Government Biologists



## GAME

## COMPARISON OF THE NUMBER OF GAME LICENCES ISSUED

	1958	1959	1960	1961
Resident Bird Game Licences	95,571	91,560	104,123	87,551
Non-Resident (Residing in Canada) Bird Game Licences	544	486	619	675
Non-Resident (Residing outside of Canada) Bird Game Licences	1,113	813	920	848
Resident Big Game Licences	45,379	46,986	62,116	59,227
Non-Resident (Residing in Canada) Big Game Licences	11	25	26	17
Non-Resident (Residing outside of Canada) Big Game Licences	186	239	256	260

## GAME LICENCES

APRIL 1st. 1961 to MARCH 31st. 1962

KIND	Licences	Fee	Total Amount
Resident Bird Game Licences	87,551	3.50	\$ 306,428.50
Non-Resident (Residing in Canada) Bird Game Licences	675	5.00	3,375.00
Non-Resident (Residing outside of Canada) Bird Game Licences	848	25.00	21,200.00
Resident Big Game Licences	59,227	6.00	355,362.00
Non-Resident (Residing in Canada) Big Game Licences	17	50.00	850.00
Non-Resident (Residing outside of Canada) Big Game Licences	260	100.00	26,000.00
Permit to Collect	44	FREE	
Taxidermists' Licences	43	5.00	215.00
Guide's Licences (Class "A" & "B")	266	2.50	665.00
Guide's Licences (Class "C")	28	1.00	28.00
Game Farms (Game Birds)	44	5.00	220.00
Game Farms (Big Game Animals)	1	100.00	100.00
Outfitter's Licences	47	25.00	1,175.00
Resident Trapper's Licences	2636	3.00	7,908.00
Dog Trainers	10	Various	130.00
Resident Spring Bear Licences	412	5.00	2,060.00
Non-Resident Spring Bear Licences	8	25.00	200.00
Resident Goat Licences	410	7.50	3,075.00
Resident Sheep Licences	962	7.50	7,215.00
Resident Antelope Licences	2481	5.00	12,405.00
White-Tail Deer Tags	2743	2.00	5,486.00

## BOUNTY ON COUGARS - SEASON 1961-62

Cougars killed from APRIL 1st. 1961 to MARCH 31st. 1962

35 Cougars at \$15.00	\$ 525.00
15 Cougars at \$40.00	600.00

## CONVICTIONS UNDER THE GAME ACT - 1961-62

Number of Convictions	722
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## CONFISCATED FURS

Amount realized from the sale of confiscated fur during the period April 1st, 1961 to March 31st, 1962	\$ 2,510.65
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## TRAPLINE REGISTRATIONS

Number of Registered Trap-Lines and Revenue April 1st, 1961 to March 31st, 1962	
2,574 @ \$ 10.00	\$ 25,740.00

## FUR DEALERS' LICENCES, ETC.

April 1st, 1961 to March 31st, 1962
-------------------------------------

KIND	NUMBER	REVENUE
Resident Fur Dealer's Licences to carry on business in a city, and elsewhere than in a city	168	1,650.00
Non-Resident Fur Dealer's Licences to carry on business in the Province	2	200.00
Resident Travelling Fur Purchasing Agent's Licences	10	250.00
Furrier's Licences	20	200.00
Tanner's Licences	7	70.00

## FUR TAX REVENUE

Amount Collected	\$ 89,116.38
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## MUSKRAT AND BEAVER

Muskrat Permits issued free (Damage to Farmers' Lands, Roads & Irrigation)	35
Muskrat reported taken	845
Beaver Permits issued free (Damage to Farmers' Lands, Roads & Irrigation)	170
Beaver reported taken	918

## LICENCES

Kind	1957-58	1958-59	1959-60	1960-61	1961-62
	No.	No.	No.	No.	No.
Angling Permits	118,323	129,167	135,243	138,837	119,773
Domestic Fishery Licences	93	133	149	146	75
Fisherman's Licences	7,987	6,415	7,088	7,425	5,211
Commercial Fishery Licences	180	184	212	237	221
Fish Dealers' Licences	127	99	86	109	104
Motor Boat Licences	44				
Total	126,754	135,998	142,778	146,754	125,384

## COMMERCIAL PRODUCTION OF FISH

Species	1957-58	1958-59	1959-60	1960-61	1961-62
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Whitefish	3,813,128	4,182,729	4,377,844	5,821,768	3,553,462
Trout	17,664	23,762	16,491	72,458	52,435
Pike	554,958	690,657	752,842	976,922	904,429
Pickrel	268,594	436,304	738,783	1,086,566	822,970
Perch	49,815	47,141	128,503	98,938	87,545
Tullibee	4,644,004	5,560,153	5,630,789	8,060,352	3,358,179
Mixed Fish	950,627	1,210,904	810,083	602,896	484,476
Total	10,298,790	12,151,650	12,455,335	16,719,900	9,263,496

	Weight Lbs.	Value to Fishermen \$	Value as Marketed \$
Totals for year 1957-58	10,298,790	798,127.75	1,321,179.77
Totals for year 1958-59	12,151,650	980,525.06	1,553,410.24
Totals for year 1959-60	12,455,335	955,053.07	1,649,462.20
Totals for year 1960-61	16,719,900	1,227,639.61	2,178,538.51
Totals for year 1961-62	9,263,496	723,111.41	1,416,378.27

## FISH EXPORTED FROM ALBERTA 1961-62

Species	Canadian Markets Lbs.	U.S.A. Markets Lbs.	Totals Lbs.
Whitefish	355,988	1,961,830	2,317,818
Trout	125	45,303	45,428
Pickrel	128,764	633,686	762,450
Perch	7,880	68,327	76,207
Pike	33,844	120,747	154,591
Tullibee	985	99,444	100,429
Suckers	9,208	15,420	24,628
Totals	536,794	2,944,757	3,481,551

1961-62

Prosecutions (commercial fishing).....84  
 Confiscations (commercial fishing).....77

## QUANTITIES AND VALUE OF FISH CAUGHT AND MARKETED

Species	Period	Weight (lbs.)	Value to Fishermen	Value as Marketed
Whitefish	April 1/61 to Sept. 30/61	2,066,852	\$ 202,135.84	\$ 485,000.18
	Oct. 1/61 to Dec. 31/61	513,901	53,888.68	105,766.61
	Jan. 1/62 to Mar. 31/62	972,709	172,304.02	271,191.72
			3,553,462	\$ 428,328.54
Trout (Lake)	April 1/61 to Sept. 30/61	12,926	2,475.44	4,230.95
	Oct. 1/61 to Dec. 31/61	33,306	3,330.60	11,657.10
	Jan. 1/62 to Mar. 31/62	6,203	1,228.90	2,182.35
			52,435	7,034.94
Pike	April 1/61 to Sept. 30/61	345,435	13,801.64	46,096.27
	Oct. 1/61 to Dec. 31/61	156,130	9,097.03	18,900.71
	Jan. 1/62 to Mar. 31/62	402,864	24,305.99	51,319.71
			904,429	47,204.66
Pickerel	April 1/61 to Sept. 30/61	736,370	75,959.31	189,041.08
	Oct. 1/61 to Dec. 31/61	59,143	8,075.42	14,220.10
	Jan. 1/62 to Mar. 31/62	27,457	5,175.44	8,589.40
			822,970	89,210.17
Perch	April 1/61 to Sept. 30/61	59,119	4,673.91	8,277.66
	Oct. 1/61 to Dec. 31/61	9,363	713.04	1,189.24
	Jan. 1/62 to Mar. 31/62	19,063	1,143.58	2,658.76
			87,545	6,530.53
Tullibee	April 1/61 to Sept. 30/61	2,475,607	90,309.62	121,987.94
	Oct. 1/61 to Dec. 31/61	718,089	29,237.59	39,609.85
	Jan. 1/62 to Mar. 31/62	164,483	8,377.32	10,910.04
			3,358,179	127,924.53
Mixed Fish (ling, suckers & goldeyes)	April 1/61 to Sept. 30/61	283,930	9,267.95	14,282.28
	Oct. 1/61 to Dec. 31/61	72,774	2,633.78	3,272.25
	Jan. 1/62 to Mar. 31/62	127,772	4,976.31	5,994.07
			484,476	16,878.04
			9,263,496	\$ 723,111.41

The above includes 7,899 lbs. of goldeyes caught from April 1 to Oct. 31 in Lake Athabasca - Value to Fishermen - \$947.88; Value as Marketed - \$2,764.65

## COMMERCIAL CATCH OF FISH IN POUNDS 1961-62

Lake	No. of Licences	Mixed	Tullibee	Perch	Pickarel	Pike	Trout	Whitefish	Total
Amisk Lake (64-18-W4)	12	—	18,000	279	781	690	—	3,000	22,750
Andrews Lake (125-1-W4)	8	—	—	—	1,525	1,224	4,546	8,580	15,875
Athabasca Lake (117-1-W4)	51	7,899 (Goldeyes)	—	—	107,010	45,332	1,066	17,040	178,347
Bangs Lake (59-7-W4)	6	—	500	3,050	960	8,440	—	—	12,950
Battle Lake (46-2-W5)	123	—	—	—	—	800	—	11,059	11,859
Beaver Lake (66-13-W4)	232	2,224	—	160	335	2,847	—	48,859	54,425
Blackett Lake (66-11-W4)	6	800	—	3,770	1,640	5,600	—	—	11,810
Bobtail Lake (66-17-W4)	8	—	—	100	—	450	—	18,353	18,903
Bourque Lake (65-4-W4)	2	450	180	—	540	6,260	—	6,648	14,078
Buck Lake (61-19-W5)	52	—	—	—	8,450	3,300	—	10,340	22,090
Buck Lake (65-17-W4)	14	—	—	5,107	—	33,347	—	640	39,094
Buck Lake (46-6-W5)	1228	3,216	—	—	9,000	6,432	—	61,936	80,584
Buffalo Lake (64-14-W4)	8	—	—	—	—	4,700	—	—	4,700
Burnt Lakes (95-25-W4)	4	250	—	—	30	50	—	8,637	8,967
Calling Lake (72-22-W4)	33	155,097	216,617	—	2,462	5,584	—	6,398	386,158
Charles Lake (124-4-W4)	21	—	—	—	—	212	12,826	15,363	28,401
Chin Lakes (8-18-W4)	53	—	—	—	—	276	—	11,014	11,290
Chip Lake (54-10-W5)	10	1,455	—	—	—	9,345	—	—	10,800
Christina Lake (76-6-W4)	6	—	13,925	527	12,426	4,425	—	17,738	49,041
Cold Lake (64-1-W4)	114	18,000	—	—	1,200	2,700	6,063	105,633	133,596
Cornwall Lake (122-4-W4)	11	—	—	—	—	1,480	15,333	19,799	36,612
Cow Lake (72-11-W4)	2	—	—	—	—	1,160	—	—	1,160
Crooked Lake (63-22-W5)	—	—	—	10,480	—	7,360	—	—	17,840
Elinor Lake (65-11-W4)	26	5,298	—	—	532	362	—	15,993	22,185
Ethel Lake (64-3-W4)	15	586	2,685	—	577	1,776	—	2,698	8,322
Fawcett Lake (73-26-W4)	31	19,089	75,375	700	12,572	10,685	—	21,124	139,545
Fickle Lake (52-19-W5)	28	—	—	—	03	40	—	3,901	3,944
Fork Lake (63-11-W4)	104	600	—	—	—	500	—	33,000	34,100

## COMMERCIAL CATCH OF FISH IN POUNDS 1961-62

Lake	No. of Licences	Mixed	Tullibee	Perch	Pickrel	Pike	Trout	Whitefish	Total
Frenchman Lake (66-25-W4)	18	1,114	—	1,410	—	14,830	—	2,325	19,679
Frog Lake (57-3-W4)	10	7,500	—	—	70	2,100	—	4,200	13,870
Graham Lake (87-4-W5)	3	—	—	—	1,781	2,428	—	23,790	27,999
Haig Lake (91-14-W5)	8	—	—	—	—	—	—	83,000	83,000
Heart Lake (70-10-W4)	60	24,200	92,000	200	2,968	22,070	—	1,425	142,863
Helena Lake (66-11-W4)	152	350	—	—	380	606	—	64,039	65,375
Hilda Lake (64-3-W4)	4	708	8,240	—	1,505	792	—	—	11,245
Hope Lake (65-18-W4)	2	—	3,880	400	985	2,055	—	—	7,320
Ironwood Lake (65-11-W4)	20	—	289	—	844	251	—	8,842	10,226
Island Lake (67-24-W4)	6	—	—	—	—	177	—	1,564	1,741
Island Lake (87-3-W5)	5	—	—	—	—	297	—	18,336	18,633
Jackson Lake (67-11-W4)	10	—	3,235	—	1,047	450	—	—	4,732
Kinnaird Lake (67-10-W4)	11	1,000	5,290	230	1,964	300	—	—	8,784
Lac La Biche (68-15-W4)	419	54,193	398,362	2,858	13,420	146,427	—	189,145	804,405
Lac La Nonne (57-3-W5)	109	—	2,340	—	241	674	—	5,894	9,149
Lac Ste. Anne (54-3-W5)	155	50,375	—	—	7,320	1,285	—	43,940	102,920
Lawrence Lake (69-25-W4)	6	3,000	—	—	—	5,000	—	—	8,000
Leland Lake (124-7-W4)	6	—	—	—	7,040	1,479	4,439	11,331	24,289
Lesser Slave Lake	314 F	—	—	—	—	—	—	—	—
Little Egg (Biolo) Lake (64-14-W4)	221 C	35,581	1,901,651	49,978	530,777	16,166	—	963,038	3,497,191
Little Whitefish # 1 (78-7-W5)	10	—	—	—	—	6,770	—	—	6,770
Lonepine Lake (63-14-W4)	14	—	6,981	—	—	40,485	—	31,273	78,739
Long Lake (55-15-W5)	2	—	—	—	—	4,100	—	—	4,100
Long Lake (78-5-W5)	1	—	—	—	—	3,035	—	—	3,035
Marie Lake (65-3-W4)	21	—	—	2,046	—	35,144	—	1,336	38,526
Permits -	4	—	—	—	—	—	—	—	—
McGregor Lake (18-21-W4)	2	10,155	—	—	492	2,088	—	24,540	37,275
McLeod Lake (61-11-W5)	174	—	—	04	—	26,130	21	279,399	305,554
	8	—	—	—	—	104	—	1,050	1,154



COMMERCIAL CATCH OF FISH IN POUNDS 1961-62

Lake	No. of Licences	Mixed	Tullibee	Perch	Pickarel	Pike	Trout	Whitefish	Total
Meekwop Lake (65-18-W5)	2	—	—	495	—	2,805	—	—	3,300
Moose Lake (60-6-W4)	42	4,459	19,236	—	6,861	2,234	—	27,310	60,100
Muriel Lake (59-5-W4)	119	2,000	—	—	—	3,750	—	131,201	136,951
Newell Lake (17-15-W4)	184	2,590	—	—	—	48,429	16	177,104	228,139
North Wabasca Lake (81-26-W4)	56	870	2,352	246	16,456	36,246	—	173,219	229,389
Orloff (Island) Lake (72-23-W4)	15	458	9,150	—	1,213	10,952	—	6,584	28,357
Peerless Lake (88-5-W5)	12	—	—	—	40	4,590	8,125	128,521	141,276
Pigeon Lake (47-1-W5)	246	14,688	—	100	140	3,342	—	158,522	176,792
Pinehurst Lake (65-10-W4)	106	2,980	76,000	1,650	6,097	13,202	—	5,400	105,329
Primrose Lake (67-1-W4)	16	—	—	—	5,215	3,183	—	3,930	12,328
Rattlesnake Coulee Reservoir (12-8-W4)	5	—	—	—	45	80	—	450	575
Rock Island Lake (75-22-W4)	7	—	—	—	12,287	—	—	1,561	13,848
Rolling Hills Reservoir (16-15-W4)	88	75	—	—	—	1,175	—	59,868	61,118
Sander Lake (80-2-W5)	6	—	—	—	—	54	—	466	520
Sandy Lake (79-22-W4)	20	—	212	127	8,005	—	—	32,310	40,654
Sherburn Reservoir (Grassy Lake) (9-13-W4)	83	1,011	—	—	76	35	—	37,801	38,923
Shining Bank Lake (56-14-W5)	14	—	—	—	—	243	—	958	1,201
Snipe Lake (71-19-W5)	4	—	—	—	—	4,500	—	—	4,500
South Wabasca Lake (79-24-W4)	25	—	42,810	400	—	142,776	—	325	186,311
Spencer (Mosquito) Lake (67-9-W4)	69	—	—	—	1,672	1,535	—	37,164	40,371
Square Lake (68-13-W4)	19	—	10,840	2,925	—	13,310	—	—	27,075
Sturgeon Lake (70-23-W5)	—	—	—	—	470	—	—	64,598	65,068
Taber and Fincastle Lakes (10-16-W4)	8	—	—	—	65	104	—	786	955
Touchwood Lake (67-10-W4)	4 Permits	1,258	—	—	4,604	4,994	—	10,917	21,773

## COMMERCIAL CATCH OF FISH IN POUNDS 1961-62

Lake	No. of Licences	Mixed	Tullibee	Perch	Pickarel	Pike	Trout	Whitefish	Total
Travers Reservoir (15-21-W4)	26	06	—	—	47	1,174	—	11,974	13,201
Tucker Lake (64-5-W4)	4	—	—	—	—	4,940	—	—	4,940
Utikuma Lake (80-10-W5)	15	—	382	03	139	32,689	—	34,866	68,079
Wayetenaw Lake (61-13-W4)	3	—	—	100	—	800	—	—	900
Whitefish Lake (62-13-W4)	128	40,516	441,482	200	2,625	7,197	—	18,768	510,788
Williams Lake (14-20-W4)	70	330	—	—	—	420	—	14,148	14,898
Winefred Lake (75-4-W4)	3 Permits	2,000	—	—	11,023	34,642	—	188,729	236,394
Wolf Lake (66-7-W4)	24	9,145	5,115	—	15,013	24,285	—	18,320	71,878
Yellow Lakes	5	—	—	—	—	123	—	1,442	1,565

## TECHNICAL DIVISION

Report of the Director of the Technical Division

H. SOLEY

During the fiscal year ending March 31st, 1962, the Technical Division processed 874 Notifications covering an area of 245,474.4722 acres. These figures represent a very small increase over the number of Notifications and the acres patented for the preceding fiscal year and are an indication that the demand for land is remaining constant.

A schedule of the Notifications issued and the break-down of same are shown hereunder:

### NOTIFICATIONS ISSUED DURING FISCAL YEAR

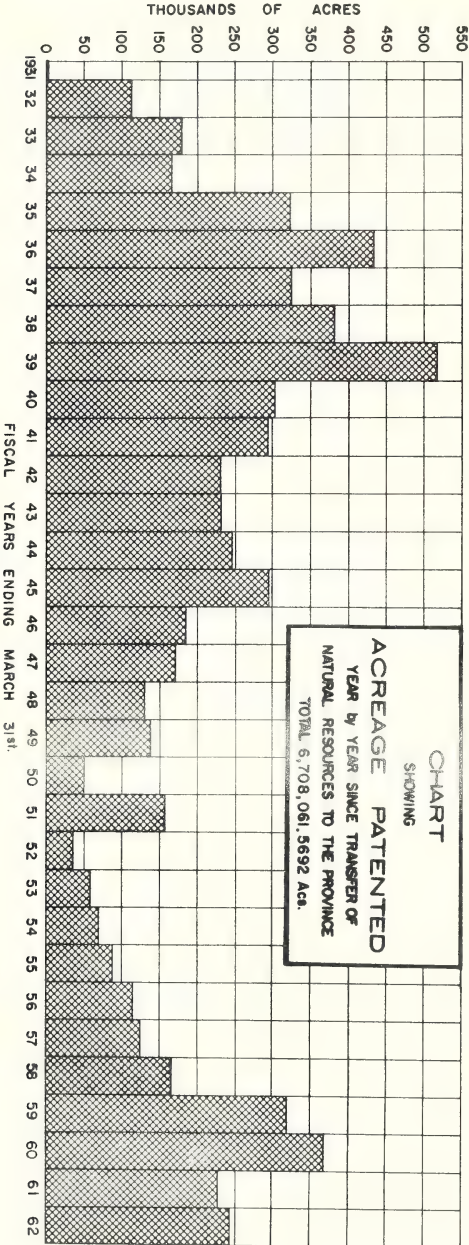
April 1st, 1961 to March 31, 1962

(Surface rights only)

Classification	Notifications	Area
Homesteads	298	72,899.5700 acres
Sales (including lots in subdivisions)	220	23,944.7012 acres
School Land Sales (including lots in subdivisions)	229	39,760.1570 acres
Notifications to Minister of Lands and Forests	56	99,099.4200 acres
Exchanges of land	11	2,084.2040 acres
Transfer of Administration and Control	12	447.6400 acres
Release of Habendum Clause	7	9.9300 acres
Special Grants and Free Grants (including lots in subdivisions)	8	26.2400 acres
Homestead Sales	24	5,176.0400 acres
Supplementary Patents	1	7.0000 acres
Homestead Lease Loan Sales	2	320.0000 acres
Sales & School Land Sales combined	6	1,699.5700 acres
	874	245,474.4722 acres

### NUMBER OF SALES IN SUBDIVISIONS WHICH ARE INCLUDED IN THE 220 NOTIFICATIONS REFERRED TO ABOVE

Subdivision	Notifications	No. of Lots	No. of Blocks	Acres
Whitecourt 4315 K.S.	1	1	1	2.49
Whitecourt 3746 K.S.	7	12	5	1.38
Whitecourt 2935 M.C.	3	38	3	
Whitecourt Addition 4421 K.S.	1	1	1	1.21
Harvie Heights 6402 H.X.	18	18	7	
Lodgepole 3504 K.S.	2	1	2	1.45
Thunder Lake 6671 K.S.	6	6	2	



Subdivision	Notifications	No. of Lots	No. of Blocks	Acres
Calling Lake 3798 K.S.	2	2	2	
Bow View 793 J.K.	1	1	1	1.88
Long Lake 5818 K.S.	1	1	1	
Three Sisters 8170 H.X.	2	3	2	1.33
Walsh 3644 B.	2	2	1	
	46	86	28	9.74

NUMBER OF SCHOOL LAND SALES IN SUBDIVISIONS WHICH ARE  
INCLUDED IN THE 229 NOTIFICATIONS REFERRED TO ABOVE

Subdivision	Notifications	No. of Lots	No. of Blocks	Acres
Willington 1329 H.W.	1	2	1	

NUMBER OF SPECIAL GRANTS & FREE GRANTS IN SUBDIVISIONS  
WHICH ARE INCLUDED IN THE 8 NOTIFICATIONS REFERRED  
TO ABOVE

Subdivision	Notifications	No. of Lots	No. of Blocks	Acres
Chipewyan Settlement	1	1		0.69

Area not stated in these 40 Notifications - 39 sales  
1 school land sale

40

Total number of Notifications in  
which area stated -

834

Total number of Notifications -

874

## LAND SETTLEMENT SURVEYS

There were no surveys carried out during the fiscal year covered by this report for land settlement purposes, however, it is expected that further surveys will be undertaken in the Fort Vermilion Area during the 1962-63 fiscal year.

## MISCELLANEOUS SURVEYS

The demand for the survey of miscellaneous subdivisions and parcels required by various branches in the department remains constant and the following brief summary will detail the individual surveys carried out during the fiscal year.

### Cold Creek Forestry Site

A survey was made in the South East quarter of Section 29, Township 53, Range 11, West of the 5th Meridian, of an area required by the Forestry Branch for the Ranger Station Site in order that the site could be excepted from future dispositions of other lands in Section 29.

### New Town of Whitecourt

Two separate subdivisions were surveyed in the area of the New Town of Whitecourt in Section 25, Township 59, Range 12, West of the 5th Meridian. The subdivisions provide commercial and residential lots in the area and a total of 192 lots were made available.

### Cross Lake Subdivision

A survey of a small subdivision in Sections 30 and 31, Township 65, Range 25, West of the 4th Meridian, on the North side of Cross Lake was made and approximately 80 lots were made available. An access roadway was also surveyed into the site from existing roadways in Cross Lake Provincial Park.

### Waiparous Townsite

An extension to the existing townsite subdivision at Waiparous in Section 6, Township 27, Range 6, West of the 5th Meridian, was surveyed in accordance with a layout plan prepared by the Calgary District Planning Commission in response to a request initiated by the Lands Branch of this department. Approximately 45 cottage sites were provided in this survey.

### Addition to Fox Creek

Requests were received in the department for additional residential and commercial sites in the Fox Creek Townsite in Township 62, Range 19, West of the 5th Meridian. A survey of an addition at Fox Creek was carried out and 58 commercial and residential lots were made available.

### Addition to Forestry Site-Hinton

An area in the South West quarter of Section 14, Township 51, Range 25, West of the 5th Meridian was surveyed in the Township of Hinton to be acquired from the Town of Hinton as an addition to the existing Forestry Training School. The area acquired from the Town of Hinton would be exchanged for other Crown lands in the area.

### Aspen Beach Park

A survey was made of a nuisance ground site near Aspen Beach Provincial Park to accommodate the needs of the people using the facilities at the park. The existing nuisance ground was the property of the summer village of Gull Lake and additional area had to be acquired for park purposes.

### Sewer Line Right-of-Way - Aspen Beach Park

A survey was made of an area required for sewer line and sewage lagoon purposes in Section 28, Township 40, Range 28, West of the 4th



Meridian. The area surveyed is to be purchased from a private land owner by the Provincial Parks Branch.

#### Survey of Diversion - Pincher Creek

The town of Pincher Creek has been negotiating with the Lands Branch of the department with respect to a diversion of Pincher Creek within the limits of the town of Pincher Creek. A survey was carried out of this diversion in order to form the basis of further negotiations.

#### Beauvais Lake Provincial Park

A miscellaneous survey was carried out whereby the boundaries of Beauvais Lake Provincial Park in Township 5, Range 1, West of the 5th Meridian, were surveyed and posted on the ground.

#### Commercial Site - Long Lake

A site was surveyed in Section 23, Township 63, Range 19, West of the 5th Meridian, to provide an area which could be used for commercial purposes adjacent to the Long Lake Subdivision.

#### Forestry Roadway

A survey was made of a forestry roadway in the South West quarter of Section 4, Township 69, West of the 5th Meridian, in order that the area required for the roadway could be excepted from the title to the quarter section which was being patented to a private individual.

Plans of survey covering the various miscellaneous surveys are drawn in the Technical Division and are registered in the respective Land Titles Offices. Certificates of Title are acquired in the name of the Minister of Lands and Forests where applicable.

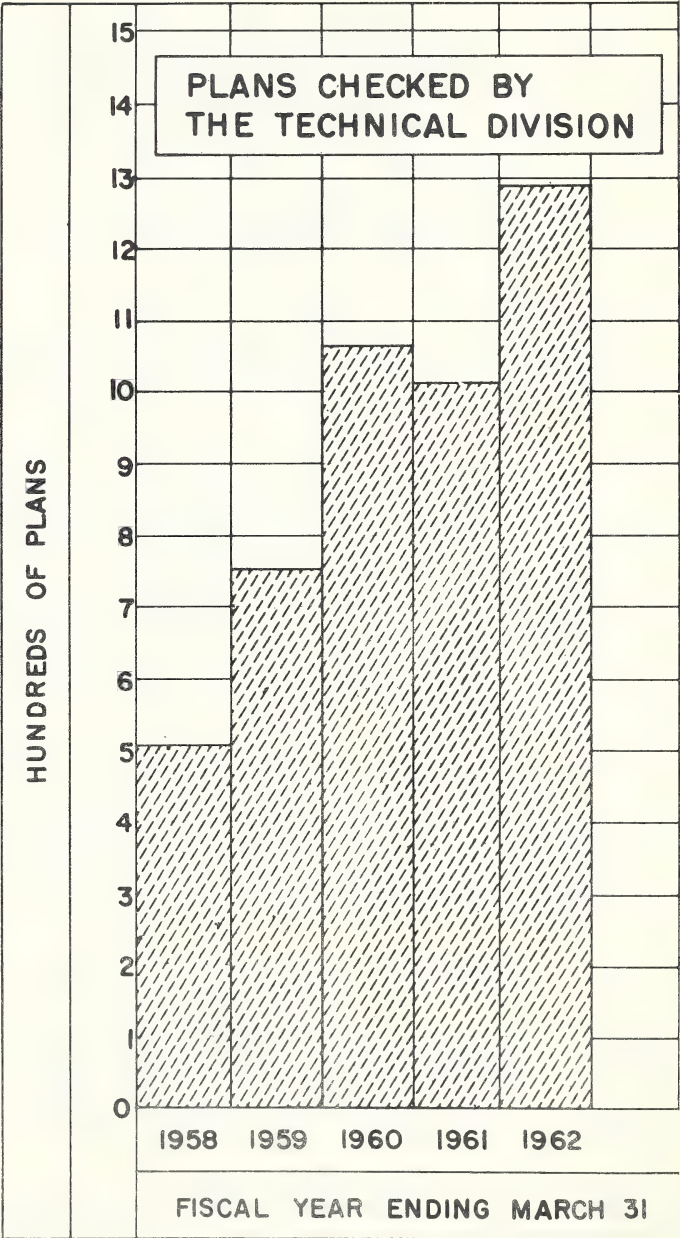
#### RESTORATION SURVEYS

After an absence of one year, during which time the restoration survey party was engaged restoring monuments damaged and destroyed during oil exploration activity, the party returned to Southern Alberta to continue the resurvey of the Eastern Rockies Forest Conservation Area boundary and the restoration of survey monuments along this boundary. The survey proceeded from Township 7, Range 5, West of the 5th Meridian, along the boundary through and including Township 13, Range 2, West of the 5th Meridian.

During the survey season 118.5 miles of line were resurveyed and 162 monuments along the boundary were restored or re-established.

The number of miles of line resurveyed indicates a very successful field season when the topography of land being surveyed and other factors such as weather, shortness of season, etc. are taken into account. The old survey cut lines have in most places grown over with the result that most of the lines must be recut and practically all monuments on the boundary must be restored or re-established.

The plans showing the restoration surveys and the field books covering the field survey notes were prepared and forwarded to the Director of Surveys of the Department of Highways. Prints of the plans were



forwarded to the Superintendent of the Crowsnest Forest Reserve for his information and that of the field staff in the area.

#### PLANS OF SURVEY

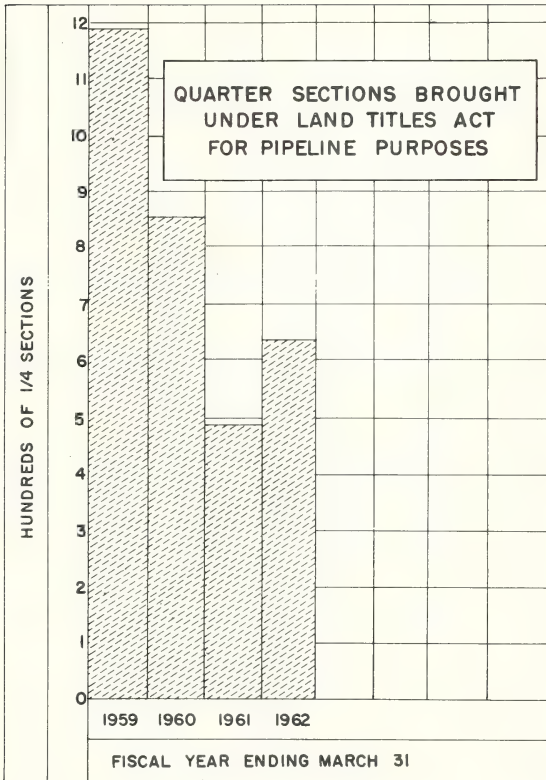
A substantial increase in the number of plans submitted to the Technical Division for examination and filing was recorded during the year. The plans are checked in order that the rights of the applicants filing the plans can be established on Crown lands. Brief details are as follows:

1. 265 survey plans, covering pipe line rights-of-way affecting Crown lands, were received from the various oil companies and pipe line companies.
2. 459 plans of survey, covering wellsites, battery sites, access roadways and flow line rights-of-way were received from the various oil companies and filed in accordance with their Mineral Surface Lease Applications.
3. 131 plans covering power line rights-of-way were received from the major power companies and Rural Electrification Associations.
4. 32 survey plans covering canal rights-of-way and reservoir sites affecting Crown lands were received and filed in our records.
5. 97 plans covering access roadways used by various oil companies in gaining access to their drilling operations were deposited for our records.
6. 162 survey plans covering surveyed roadways affecting Crown lands, were received from the Department of Highways, Municipal Districts and Counties. Reservations were entered in the records of this department against all Crown lands affected and the plans filed.
7. 55 survey plans of general surveys, affecting Crown lands were recorded in this office.
8. 92 subdivision and parcel plans were checked, in which there were no Crown lands included.

#### TITLES ACQUIRED IN THE NAME OF THE CROWN

Certificates of Title in the name of the Crown were acquired during the year as follows:

Twenty-six quarter sections acquired through purchase by this Department for inclusion in the Pinhorn Grazing Reserve and ten quarter sections were acquired through purchase by the Department of Agriculture for inclusion in two irrigated community reserves.



Two quarter sections were acquired through transfer from the Department of Municipal Affairs for administration by this department.

Portions of three quarter sections were acquired through abandonment of school sites and a community hall site, portions of two quarter sections were acquired for a forestry headquarters site and an air strip, and portions of two quarter sections were acquired for historical sites.

A parcel of land in Lowery Gardens in the City of Calgary was acquired through a transfer from the Department of Agriculture since it was no longer required by that Department.

In addition to the above, titles to 636 quarter sections were received here for lands which had been brought under the Land Titles Act by this office to facilitate the registration of mortgages against easements, pipe line agreements, board orders, etc., by pipe line companies and major utility companies.

## AERIAL PHOTOGRAPHY

At the beginning of the fiscal year under review, the areas of the province which were not covered in the detailed planimetric map series were map sheet areas 83 M, 83 N, 82 H, 73 L, 82-0-1, 82-J-16, 82-I-13 and 83-H-11, 12, 13 and 14. Tenders were called to obtain aerial photographic coverage of areas 83 M, 83 N and 82 H and Spartan Air Services Limited submitted the successful tender for this photography. Approximately 90% of the contract was completed during the fiscal year and the remainder will be completed at the beginning of the 1962-63 fiscal year.

### Aerial Photographs

The number of contact aerial prints produced on all scales during the fiscal year amounted to 67,258. This indicates a small increase over the total number of prints for the preceding year and again is an indication that the demand for aerial photographs continues to remain constant.

### Aerial Photographic Surveys Act

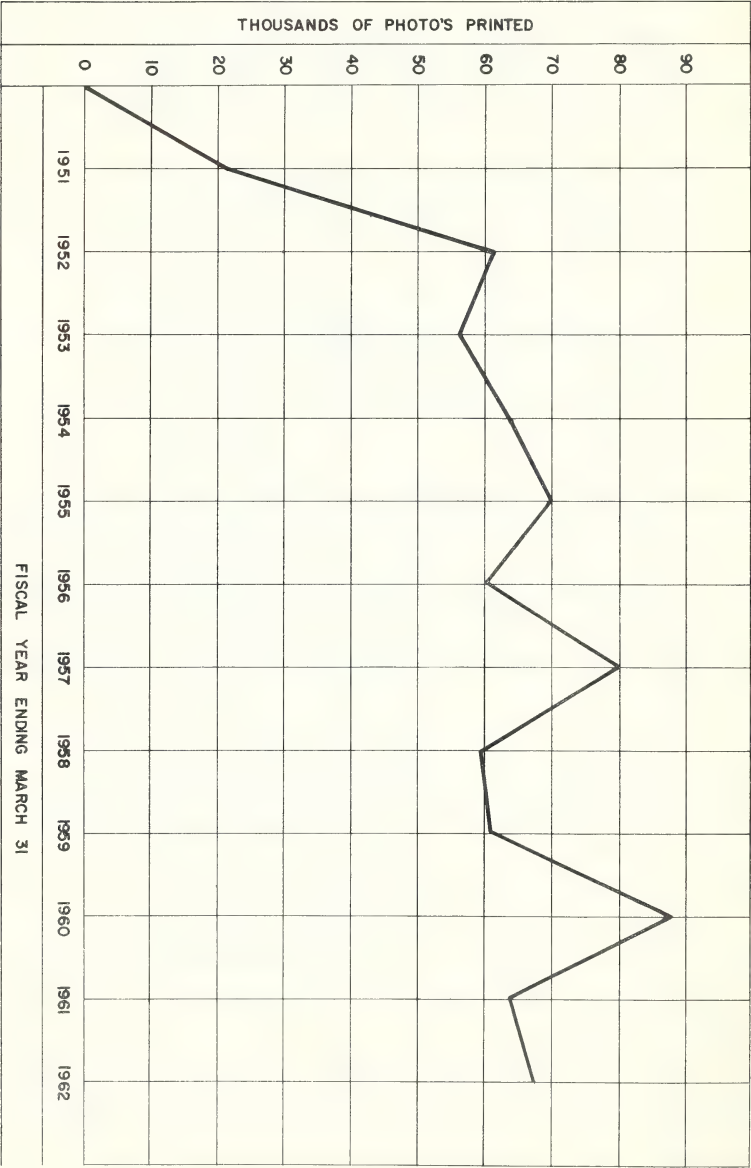
A total of 38 flying licences were issued during the year. This is a small increase over the number of licences in effect during the previous fiscal year.

### Photographic Enlargements

The demand for photographic enlargements during the fiscal year remains constant with a total of 743 enlargements produced during the year. This is a decrease of 40 from the previous year.

### Mosaics

222 mosaics were compiled during the fiscal year on a scale of





1 inch = 1 mile. 11,206 semi-controlled photographs were printed on the Zeiss enlarger for use in compiling the mosaics.

With the conclusion of the 1961-62 fiscal year the mosaic project undertaken in 1957 at the request of the Research Council of Alberta has been completed. It remains now only to forward the contact mosaic prints of the last number of mosaics produced to the Research Council.

During the five year program a total of 764 mosaics on a scale of 1 inch to 1 mile were produced and the negatives of these mosaics are on file in the Technical Division and will be used in future years to produce photographic positive prints of the mosaics for sale to Government Departments and the general public. During the year covered by this report 333 mosaic prints were produced for organizations other than the Research Council. 187 of these were for Government use and 146 were sold to private individuals or commercial industrial firms.

#### Special Order Mosaics

A total of 26 special mosaics were constructed having a total area of 2,142 square miles. These mosaics were produced for the Forestry Branch and other Government Agencies.

#### Film Processing

The photographic laboratory processed eleven K 20 and seven 9 1/2" x 9 1/2" films and produced 907 and 1,032 prints respectively from these films.

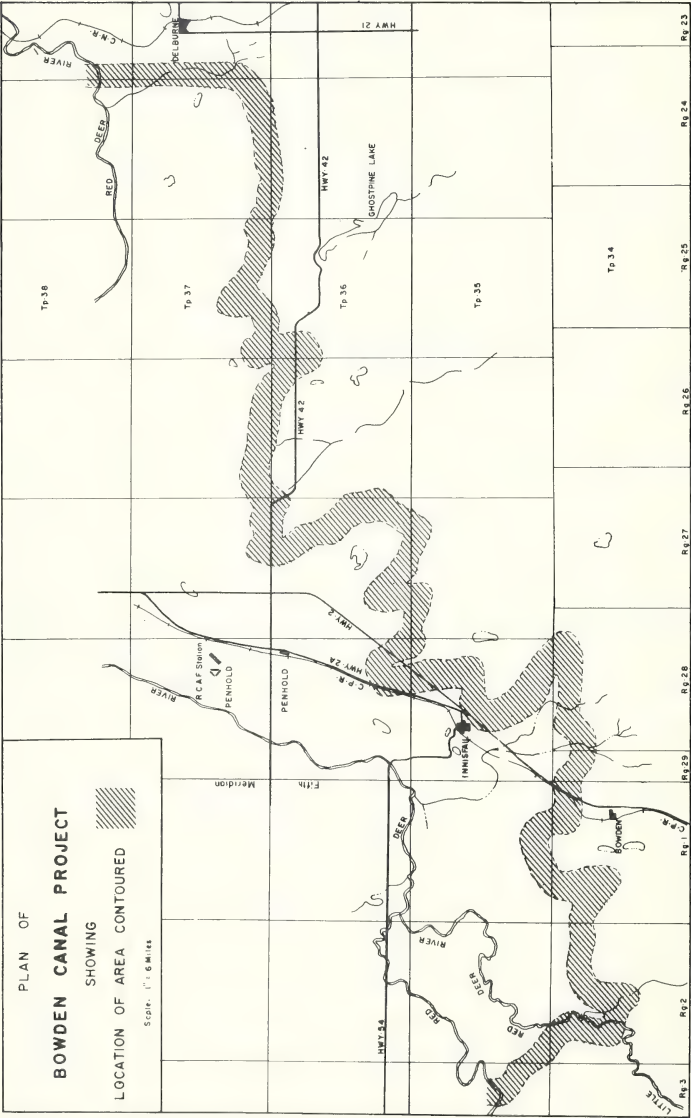
#### Kelsh and Multiplex Diapositive Plates

During the year 509 Kelsh plates and 330 Multiplex plates were produced in the photograph laboratory. This is an increase of 256 and 119 plates respectively over the previous year and is a strong indication that the demand for contour maps from the Kelsh and Multiplex mapping units is continuing to increase. It should be noted that last year a 103 plate increase over the previous year was also reported.

#### Contour Mapping

Fifteen individual mapping projects were compiled during the year covering a combined area of 103,340 acres. As in previous years the heavy demand for this type of work came from the Department of Water Resources, Department of Highways and the Provincial Parks Branch of the Department of Lands and Forests.

One of the projects of special note completed during the year was the Bowden Canal Project for the Department of Water Resources. This project was initiated in 1959 and was completed in March of 1962. The work was carried out on the project intermittently during the period and the project involved 5 foot contour intervals and made use of 224 Kelsh plates and 294 Multiplex plates. A strip some 95 miles long was contoured covering 128,000 acres of land and involved approximately 3,500 hours of work. It is interesting to note that the project costs were approximately \$9,600.00 to complete on the plotters and it is estimated that a comparative field survey cost would be \$48,000.00 and would take approximately 10 years to complete. The consensus of expert opinion is that compilation



of projects of this nature by photogrammetric methods is five times less expensive and faster than a conventional ground survey of the same area.

## MAPPING

### Planimetric Mapping

The survey and control were plotted on manuscripts 83-M-1 to 16 and 83-N-1 to 16 inclusive. The template lay-down was completed for sheets 83-M-1 to 16 and all control points were transferred to the manuscripts.

46 planimetric maps were drawn on scribecoat and were lithographed in color. These maps were 73-L-1 to 16 inclusive, 73-E-1 to 4 inclusive, 6 to 11 inclusive, and 14 to 16 inclusive, 73-D-12 and 13, 82-0-1, 82-J-16, 82-I-13 and 72-E-1 to 12 inclusive. 200 copies of each map were printed.

Stock supplies of some 20 1 inch to 1 mile planimetric maps were depleted and re-runs of these lithographed maps from standing plates were made of the following map sheets:

82-0-3, 6, 16; 83-A-4; 83-B-1, 2, 8, 10, 14; 83-F-10; 83-G-3, 7, 12, 16; 83-H-5, 6; 83-I-5, 12, 13; and 83-J-8.

200 copies of each map were produced.

### New 8 Mile Map

A new 8 mile map of Alberta published in four sections was completed on scribecoat and lithographed in color. This map involves a total of 36 individual scribecoat sheets and over-lays being 9 individual sheets per quarter. The map is to be used as a base for future productions of a new 16 mile map, 32 mile map, base maps, etc. With the conversion to scribecoat in the production of maps, any number of variations of information to be shown on the maps can be made available by removing certain sheets of the scribecoat over-lays or substituting various other over-lays depending upon the information required.

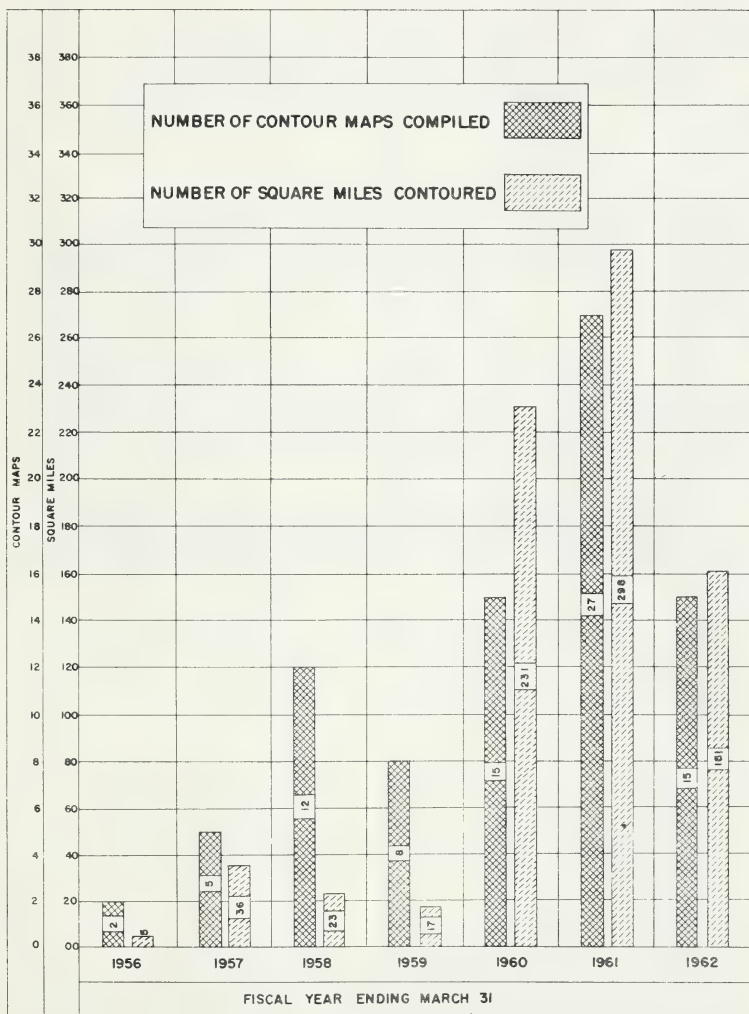
The quality of line work which can be obtained by using scribecoat is far superior to that which can be obtained through ordinary pen and ink drafting and this point is vividly illustrated when comparing the new 8 mile map recently produced with the maps produced in previous years.

A geographic guide containing the approved geographic names and locations shown on the 1 inch to 8 mile and 1 inch to 16 mile maps produced in the Technical Division was published. Copies are distributed free with the purchase of the complete 8 mile map and are sold for a nominal sum otherwise.

### Forest Reserve Maps

A start was made on the revision and production of three new maps covering the Forest Reserves of the Eastern Rockies Forest Conservation Area at the end of the fiscal year. The name lists and compilation sheets were completed and scribing was well advanced on the map of the Crowsnest Forest Reserve.







## GENERAL

The booklet entitled "Public Lands Open for Settlement in the Peace River District of Alberta" was re-issued with up to date maps showing the standing of lands and was revised with respect to the descriptive material.

## Settlement Area Map

The demand for this map, which is distributed free of charge, remains constant and 3,000 copies of the map were re-printed during the year.

## Aerial Photograph and Map Sales

Map sales for the fiscal year amounted to \$24,646.03. This is a decrease of approximately \$2,700.00 from the previous fiscal year. The sale of photographs amounted to \$27,164.39, a small decrease over the previous year.

## Miscellaneous

A large increase in the volume of work produced through the reproduction machines was recorded during the fiscal year and the demand for mounted maps shows a considerable increase over the previous year due, no doubt, to the increased number of new map publications available through the department.

A perusal of this report will reveal that an increased volume of work flowed through the Division. This work was efficiently handled by existing staff and to this loyal and conscientious staff I express my appreciation.



## ACCOUNTING DIVISION

Report of the Administrative Accountant

A. McCALLUM

## REVENUE

Gross receipts from all sources totalled \$9,469,846.53, an increase of \$780,051.52 over the previous year.

Net receipts amounted to \$6,138,445.93, being a decrease over the previous year of \$114,608.20.

Main increases and decreases are as follows:

	Decrease	Increase
	\$	\$
Fisheries Accounts	—	58,307.64
Game Accounts	38,994.03	
Lands & Grazing	—	248,774.87
Timber	427,279.84	
School Lands	—	68,166.78
East Slope Surface Rights	33,417.36	
Miscellaneous	—	9,833.74
Net Decrease		114,608.20
	<hr/>	<hr/>
	\$499,691.23	\$499,691.23

Monies refunded from all sources, including previous year refunds, amounted to \$1,229,853.30, representing 6,102 refund requisitions processed.

As provided under "The Grazing Lease Taxation Act", "The Crown Cultivation Leases Act", and "The Tax Recovery Act", refunds to the taxing authority amounted to \$590,591.81.

Trust funds at March 31, 1962, stood at \$670,098.00, made up as follows:

Homesteader's Compensation Trust	\$ 48,127.40
Parks Board Trust	116,180.23
Timber Deposits Trust	425,206.06
Forfeited Monies and Reforestation Trust Account	38,108.18
Miscellaneous Trust	42,476.13
	<hr/>
	\$670,098.00

The statement "Alberta School Land Trust Fund" reported in previous years is discontinued due to the fact that the assets of the "School Land Trust Fund" has been transferred to the "General Revenue Fund of the Province" as at March 31, 1962 in accordance with the provisions of Order-in-Council 1236/61. Sales of former "School Lands" will henceforth be reported as "Provincial Land Sales".

As at March 31, 1962, the total of active Accounts Receivable, including Fish and Game Vendors', numbered 28,238.

A record number of cash entries were recorded for the year under review, being 75,026 for which 70,811 receipts and permits issued.

The sale of Fish and Game Licences dropped from the previous year. Licences sold for 1961 and 1960 were:

	1961	1960
Fishing Licences	125,280	146,645
Game Licences	155,174	172,631

### EXPENDITURE

Total expenditure on Income Account for the year ending March 31, 1962, amounted to \$10,637,901.01. Included in this amount is Special Warrant 6, Order-in-Council 730/61, authorizing payment of \$3,800.00 to the Canmore Golf Association, representing compensation in the establishment of a new golf course by the association.

Expenditure under Capital Account for the year under review amounted to \$1,470,082.01, which included Special Warrant 65, Order-in-Council 78/62, authorizing payment of \$185,000.00 to Bar N Bar Ranching Company Limited for grazing lands, comprising 36,714.21 acres.

Under agreements as in previous years with Canada in respect to Winter Works Program, \$998,154.64 was disbursed in respect to Access Roads and Trails, and \$259,178.76 in connection with the development of Camp Grounds and Picnic Sites.

In the development of Provincial Parks, expenditure amounted to \$648,881.10. (An amount of \$23,576.41 was also disbursed from the Provincial Parks Trust Account.)

In connection with maintenance expenditure relative to the operation of the Eastern Rockies Forest Conservation Board, an amount of \$1,003,391.05 was disbursed. (Funds were also disbursed in the amount of \$8,020.37 from the East Slope Road Tolls Trust Account.)

Firefighting operations for the year under review amounted to \$2,452,000.08, while in the field of aircraft operations, expenditure amounted to \$272,599.74. Aerial photography totalled \$27,748.61, and destruction of pests totalled \$8,689.78.

Continued expansion in all branches of the Department reflects increased personnel earnings' records for both salary and wage employees.

For details of expenditure from Income Account see Statements "E" and "G".

The staff of the Accounting Division has been kept very busy due to the expansion of services throughout the Department and the degree of loyalty and efficiency exhibited by all members of the staff is once again gratefully acknowledged.

## INDEX OF STATEMENTS

- A. STATEMENT OF RECEIPTS FROM ALL SOURCES.
- B. STATEMENT OF RECEIPTS - INCOME ACCOUNT.
- C. STATEMENT OF RECEIPTS - CAPITAL ACCOUNT.
- D. STATEMENT OF RECEIPTS - SCHOOL LANDS.
- E. STATEMENT OF EXPENDITURE FOR THE YEAR  
ENDING MARCH 31, 1962.
- F. STATEMENT OF RECEIPTS BY BRANCHES.
- G. STATEMENT OF DISBURSEMENTS BY BRANCHES.
- H. ALBERTA SCHOOL LAND SALES - REVENUE ACCOUNT.

STATEMENT ASTATEMENT OF RECEIPTS FROM ALL SOURCESFROM APRIL 1, 1961 TO MARCH 31, 1962

	GROSS RECEIPTS	REFUNDS	NET RECEIPTS
	\$	\$	\$
Income Account	6,854,153.36	715,707.43	6,138,445.93
Capital Account	1,117,578.61	10,174.52	1,107,404.09
Reimbursement of Previous Year's Expenditure	2,345.78	517.50	1,828.28
School Land Trust Fund	394,310.86	2,580.00	391,730.86
Timber Deposits Trust	270,657.58	143,681.50	126,976.08
Homesteader's Compensation Trust	9,068.08	990.49	8,077.59
Homestead Lease Loan Trust	141,262.76	5,026.21	136,236.55
East Slope Road Tolls Trust	—	—	—
Parks Board Trust	55,641.60	468.99	55,172.61
Miscellaneous Trust	23,330.47	5,431.50	17,898.97
Reforestation & Timber Forfeited Monies Trust	10,805.58	—	10,805.58
Unapplied Receipts Carried Forward:			
Improvements	16,268.92	10,808.68	5,460.24
Suspense	284,422.93	125,785.29	158,637.64
Public Lands Grazing Permits	35,000.00	—	35,000.00
Public Lands Grazing Lease Rentals	225,000.00	—	225,000.00
Public Lands Homestead Lease Crop Share	30,000.00	—	30,000.00
	\$9,469,846.53	\$1,021,172.11	\$8,448,674.42

## STATEMENT B

## STATEMENT OF RECEIPTS - INCOME ACCOUNT

FROM APRIL 1, 1961 TO MARCH 31, 1962

	GROSS RECEIPTS	REFUNDS	NET RECEIPTS
	\$	\$	\$
<b>FISHERIES ACCOUNTS</b>			
Fishing Licences	249,125.80	1,304.35	247,821.45
Fisheries Miscellaneous	987.43	177.84	809.59
Fisheries Royalties	28,836.75	—	28,836.75
	\$ 278,949.98	\$ 1,482.19	\$ 277,467.79
<b>GAME ACCOUNTS</b>			
Game Licences	738,830.66	153,029.51	585,801.15
Fur Tax	87,271.53	2,821.66	84,449.87
Game Branch Miscellaneous	3,614.41	146.50	3,467.91
	\$ 829,716.60	\$ 155,997.67	\$ 673,718.93
<b>LANDS &amp; GRAZING</b>			
Grazing Leases, Permits, Etc.	869,442.01	270,566.65	598,875.36
Hay Permits, Fees, Dues, Etc.	6,978.13	1,560.09	5,418.04
Homestead Leases, Crop Share, Etc.	301,489.72	215,719.73	85,769.99
Public Land Sales Interest	13,053.52	6.59	13,046.93
Cultivation Leases, Permits, Etc.	82,414.31	1,508.95	80,905.36
Right of Entry	407,520.43	17,257.19	390,263.24
Miscellaneous Leases	164,722.47	8,967.05	155,755.42
Public Land Sundry Revenue	75,781.00	4,576.90	71,204.10
Land Patent Miscellaneous	4,514.16	40.50	4,473.66
	\$ 1,925,915.75	\$ 520,203.65	\$ 1,405,712.10
<b>TIMBER ACCOUNTS</b>			
Timber Fees, Rental Dues, Etc.	\$ 2,402,182.45	\$ 10,234.83	\$ 2,391,947.62
<b>SCHOOL LANDS ACCOUNT</b>			
School Land Sales Interest	54,793.09	249.46	54,543.63
School Land Leases, Permits, Etc.	470,989.99	19,416.18	451,573.81
	\$ 525,783.08	\$ 19,665.64	\$ 506,117.44
<b>EAST SLOPE SURFACE RIGHTS REVENUE</b>	\$ 415,741.16	\$ 1,784.58	\$ 413,956.58
<b>MISCELLANEOUS</b>			
Administration Sundry Revenue	124,957.38	5,841.82	119,115.56
Maps and Plans, Etc.	24,809.13	163.10	24,646.03
Restoration of Survey Monuments	9,063.72	—	9,063.72
Sale of Aerial Photographic Survey Maps	27,257.54	93.15	27,164.39
Dominion-Provincial Agreement Forest Inventory	69,159.15	—	69,159.15
Dominion-Provincial Agreement Forest Fire Protection	129,448.00	—	129,448.00
Sale of Automobiles	1,150.00	—	1,150.00
Sale of Equipment	4,708.20	—	4,708.20
Sale of Materials and Supplies	1,173.04	—	1,173.04
Canada-Provincial Agreement- Primrose Lake Air Weapons Range	53,049.98	—	53,049.98
Reimbursement of Salaries & Expenses	30,319.20	240.80	30,078.40
Dominion-Provincial Agreement Reforestation	769.00	—	769.00
	\$ 475,864.34	\$ 6,338.87	\$ 469,525.47
<b>TOTAL INCOME ACCOUNT</b>	\$ 6,854,153.36	\$ 715,707.43	\$ 6,138,445.93

(Carried forward to Statement A)

STATEMENT CSTATEMENT OF RECEIPTS - CAPITAL ACCOUNTFROM APRIL 1, 1961 TO MARCH 31, 1962

	GROSS RECEIPTS	REFUNDS	NET RECEIPTS
	\$	\$	\$
Clearing and Breaking Projects - Crop Share	61,067.51	131.85	60,935.66
Public Land Sales Principal	191,222.18	3,712.47	187,509.71
Homestead Sales Principal	132,564.19	6,330.20	126,233.99
Dominion-Provincial Agreement - Picnic Areas & Camp Grounds	147,180.43	—	147,180.43
Dominion-Provincial Agreement - Forest Access Roads	585,544.30	—	585,544.30
Total Capital Account (Carried Forward to Statement A)	\$1,117,578.61	\$10,174.52	\$1,107,404.09

STATEMENT DSTATEMENT OF RECEIPTS - SCHOOL LANDSFROM APRIL 1, 1961 TO MARCH 31, 1962

INCOME ACCOUNT	GROSS RECEIPTS	REFUNDS	NET RECEIPTS
	\$	\$	\$
School Land Sales Interest	54,793.09	249.46	54,543.63
School Land Hay Permits, Dues, Etc.	772.02	309.19	462.83
School Land Grazing Leases, Etc.	90,739.00	13,654.04	77,084.96
School Land Cultivation Rental, Crop Share	307,220.84	2,993.02	304,227.82
School Land Right of Entry	16,599.54	920.64	15,678.90
School Land Miscellaneous Leases	10,394.75	969.92	9,424.83
School Land Timber Fees, Rentals, Etc.	38,848.63	134.46	38,714.17
School Land Patent Miscellaneous	152.31	—	152.31
School Land Sundry Revenue	6,262.90	434.91	5,827.99
	\$525,783.08	\$19,665.64	\$506,117.44



GOVERNMENT OF THE PROVINCE OF ALBERTA  
LANDS AND FORESTS DEPARTMENT  
EXPENDITURE CLASSIFIED BY APPROPRIATIONS AND CHARACTER  
FOR THE YEAR ENDED MARCH 31, 1962  
INCOME ACCOUNT

STATEMENT E

Service	1801 Minister's Office	1802 General Administration	1803 Advisory Board and Committees	1804 Technical Division	1805 Registration Division	1815 Alberta Forest Service—Forest Administration Branch	1816 Alberta Forest Service—Forest Management Branch	1817 Alberta Forest Service—Rocky Mountains Forest Reserve	1819 Eastern Rockies Forest Conservation Board	1821 Alberta Forest Service—Forest Protection Branch	1823 Forest and Prairie Fires Suppression	1824 Alberta Forest Service—Forest Surveys Branch	1825 Alberta Forest Service—Aircraft Operations	1826 Alberta Forest Service—Radio Branch	1828 Alberta Forest Service—Forestry Training School	1835 Fish and Wildlife Division	1836 Destruction of Pests	1837 Commercial Fisheries	1845 Lands Division	1846 Provincial Parks	S.W. 6/61-62: Canmore Golf Association to Assist With the Establishment of a New Golf Course	Totals
Advertising .....	\$	\$	\$	\$	\$	\$ 1,561.21	\$ 4,474.78	\$	\$	\$ 30.12	\$	\$	\$	\$	\$	\$ 731.90	\$	\$	\$ 4,339.74	\$ 677.88	\$	\$ 11,815.63
Automobiles, trucks and mobile equipment, purchase .....	1,542.31			2,770.63		20,309.64	3,288.82	137,512.47		219,728.26		6,652.81	1,661.24	8,964.43	1,404.70	6,408.18		9,315.27	728.75	63,709.59		483,997.10
Automobiles, trucks and mobile equipment, expenses .....	146.63			213.55	16.50	188.04	511.96	79,489.25	74.42	175,274.93	73,600.38	778.66	12,579.07	876.70	73.14	3,947.93		2,006.52	2,646.57	27,364.81		379,789.06
Bounties for destruction of noxious weeds, animals and birds .....																	680.00			1,715.00		680.00
Buildings and sites .....										150.00												1,865.00
Compensation .....																					3,800.00	3,800.00
Contracts and agreements .....							7,723.88	30,546.78		22,672.99	9,261.40		13,473.98	59.60								1,000.00
Fees and commissions .....		40.00	231.00			10.00	133.22	506.76	1,043.33	2,379.74	21.00	4.28	355.30	222.64	17.57	631.01		1,000.00	31,156.90	73,716.31		190,242.85
Freight, express and cartage .....	1.95	20.41		115.96	1.50	431.54	888.08	2,226.50	13.92	30,742.35	296.99	193.60	211.46	2,291.47	1,147.39	1,971.86	601.02	71.01	441.51	302.87		8,353.11
Furnishings, equipment and tools .....		612.60		2,474.83		152.60	4,366.84	23,608.77	54.82	52,841.85	29,065.89	2,942.78	160.63	74,418.11	511.45	7,238.90		181.79	37.33	3,097.34		43,843.31
Grants, prizes .....						490.00									42.90			2,535.12	2,665.06	30,502.46		234,152.74
Interest .....											119.06									30,328.82		30,861.72
Insurance .....				19.55				109.67		83.96			18,186.92	2,547.04								119.06
Land .....													1,006.00			434.74		13.34	190.33	2,772.05		24,357.60
Materials and supplies, administrative .....	123.13	18,361.75		66,786.83	16,799.17	13,640.07	23,505.65	24,495.15	1,316.79	83,661.44	295,329.02	17,701.94	2,264.42	4,972.92	10,139.68	50,441.58	1,547.51	4,019.43	15,016.38	9,509.73		1,006.00
Materials and supplies, construction .....	1.59			2,155.41	8.11	63.45	7,987.74	81,562.28	2,255.49	252,365.51	8,222.69	1,892.31	7,578.38	42,225.56	348.57	14,567.95		1,944.98	14,482.35	56,335.80		659,632.59
Miscellaneous expenses .....							282.84	20.70		35.51		27.05	8.40		36.00	1,794.13		215.80	29.17	6.60		493,998.17
Postage .....	40.00	6,407.37		732.23	66.55	2,896.71	7.22	756.25	125.00	4,335.40	13.52	4.90		200.36	112.68	3,844.18		145.95	8,819.10	719.75		2,456.20
Rentals .....				17,590.44	66.50	11.75	36,002.84	44,222.50	346.00	127,779.98	1,422,230.86	1,193.95	203,812.15	379.79	21.75	21,087.62	615.45	1,826.40	21,169.08	60,315.55		29,227.17
Repair and maintenance of furnishings, equipment and tools .....		75.18		1,008.14	181.07	5.66	174.20	2,635.35	120.44	21,626.28	342.16	262.58	1.50	10,747.50	5.00	880.80		654.87	491.67	2,793.63		1,958,672.61
Repair and maintenance of office machines .....	24.30	1,845.63		248.10	161.58	290.35	502.21	419.24	2.10	820.91		566.62		285.71	77.62	672.29		126.46	2,319.63	100.85		42,006.06
Salaries .....	15,500.00	250,691.79		234,234.94	106,895.97	47,054.43	149,126.21	363,215.41		1,140,762.91		173,029.59		134,511.74	20,835.00	344,345.72		84,812.14	363,359.56	85,883.90		8,463.60
Taxes .....																						3,514,259.34
Telephone and telegraph .....	281.65	475.81		135.80	3.20	608.77	1,192.45	1,695.95	178.76	15,117.09	9.92	267.64	589.95	30,797.91	293.47	8,146.16		1,267.00	134,296.53	8.45		134,304.98
Transportation .....				19.00			229.26	505.00		1,128.12	19,056.71		145.30	10.00	16.65	6.24	431.70		3,223.04	3,471.02		67,755.59
Travelling expenses of other than public servants .....																						21,547.98
Travelling expenses of public servants .....	1,536.18	1,927.77	426.55	10,981.57	685.66	2,077.27	1,014.75	65.75	728.45	1,897.18	4,589.00	1,463.05	15.65	8.65	15.55	13.20		3.40		242.65		10,057.28
Unemployment insurance, government portion .....				89.04			23,824.45	35,994.01	2,062.18	219,033.93	17,290.79	9,467.81	214.26	17,875.65	2,952.36	139,910.36	293.64	42,581.01	42,330.26	15,140.47		586,606.18
Utilities .....							625.55	1,508.88	6.02	5,027.04	7.26	317.22	51.02	31.90	41.12	71.00	10.64	310.08	170.52	1,411.72		9,679.31
Wages .....				7,708.62		5.72	90.37	9,262.65		42,318.31	260.40	438.95	157.71	671.07	266.61	2,188.52		266.61	203.74	10,854.92		66,793.85
TOTAL: Income Account .....	\$ 19,197.74	\$ 280,458.31	\$ 657.55	\$ 347,265.64	\$ 124,904.81	\$ 89,797.21	\$ 374,174.03	\$ 958,053.13	\$ 45,337.92	\$ 2,868,119.57	\$ 2,452,000.08	\$ 289,836.88	\$ 272,599.74	\$ 339,858.67	\$ 42,893.21	\$ 643,355.55	\$ 8,689.78	\$ 156,232.93	\$ 671,787.16	\$ 648,881.10	\$ 3,800.00	\$10,637,901.01

CAPITAL ACCOUNT

Service	1881 Aerial Photography and Forest Inventory	1882 Forestry Dominion- Provincial Access Roads—Agreement	S.W. 2 & 54/61-62 Winter works program in con- nection with the construction of camp grounds and picnic sites	S.W. 65/61-62 Purchase of land for establishment of a community pasture	Totals
Automobiles, trucks and mobile equipment, purchase .....	\$	\$	\$ 3,777.42	\$	\$ 3,777.42
Automobiles, trucks and mobile equipment, expenses .....		5,702.79	289.82		5,992.61
Buildings and sites .....			5,264.00	71,631.00	76,895.00
Contracts and agreements .....		3,010.95	125,208.36		128,219.31
Fees and commissions .....		915.00	2.00		917.00
Freight, express and cartage .....		65.00	4.18		69.18
Furnishings, equipment and tools .....		347.06	3,467.40		3,814.46
Land .....				113,369.00	113,369.00
Materials and supplies, administrative .....		25,817.54	593.73		26,411.27
Materials and supplies, construction .....		116,769.18	35,986.53		152,755.71
Miscellaneous expenses .....		5.90			5.90
Rentals .....	27,748.61	690,660.49	12,049.72		730,458.82
Repair and maintenance of furnishings, equipment and tools .....		638.00	124.10		762.10
Transportation .....		315.35	25.06		340.41
Travelling expenses of other than public servants .....		197.30			197.30
Travelling expenses of public servants .....		1,541.65			1,541.65
Unemployment insurance, government portion .....		1,010.08	600.53		1,610.61
Utilities .....		1,111.00	136.63		1,247.63
Wages .....		150,047.35	71,649.28		221,696.63
TOTAL: Capital Account .....	\$ 27,748.61	\$ 998,154.64	\$ 259,178.76	\$ 185,000.00	\$1,470,082.01



## STATEMENT F

## STATEMENT OF RECEIPTS BY BRANCHES

FROM APRIL 1, 1958 TO MARCH 31, 1962

FISCAL YEAR ENDING

INCOME ACCOUNT	MARCH 31/59	MARCH 31/60	MARCH 31/61	MARCH 31/62
Fisheries Branch	\$ 182,963.81	\$ 199,055.28	\$ 219,160.15	\$ 277,467.79
Game Branch	598,293.64	597,281.52	712,712.96	673,718.93
Lands and Grazing	1,209,587.67	1,190,968.11	1,156,937.23	1,405,712.10
Timber Branch	3,309,076.19	2,970,421.32	2,819,227.46	2,391,947.62
School Lands	505,162.89	410,379.04	437,950.66	506,117.44
East Slope Surface Rights	566,550.43	554,373.61	447,373.94	413,956.58
Miscellaneous	299,542.46	412,034.08	459,691.73	469,525.47
CAPITAL ACCOUNT				
Land Sales Principal	130,772.83	154,996.70	146,089.86	187,509.71
Homestead Sales Principal	15,889.47	50,117.72	75,495.47	126,233.99
Clearing & Breaking Projects - Crop Share	13,512.44	26,844.80	31,821.56	60,935.66
Reimbursements by Dominion Government - Forest Inventory	29,907.15	35,213.50	—	—
Reimbursement by Dominion Government - Picnic Areas and Camp Grounds	29,719.68	77,340.56	110,353.59	147,180.43
Reimbursement by Dominion Government - Forest Access Roads & Trails	93,581.75	167,677.88	—	585,544.30
Transferred to Other Departments	9,002.09	3,761.32	4,736.51	1,828.28
School Land Trust Fund	399,594.04	334,181.02	446,226.04	391,730.86
Timber Deposit Trust	371,111.13	110,392.70	95,746.62	126,976.08
Homesteader's Compensation Trust	12,429.48	16,871.34	11,945.85	8,077.59
Homestead Lease Loan Trust	35,397.67	62,146.87	121,821.71	136,236.55
East Slope Road Tolls Trust	10,972.55	10,790.50	5,295.37	—
Parks Board Trust	38,052.33	32,101.22	45,707.54	55,172.61
Miscellaneous Trust	8,355.00	10,650.00	16,027.32	17,898.97
Reforestation and Timber Forfeited Trust	2,241.34	7,793.21	19,420.05	10,805.58
Unapplied Receipts Carried Forward	499,494.01	503,052.04	516,033.70	454,097.88
	\$8,371,210.05	\$7,938,444.34	\$7,899,775.32	\$8,448,674.42

## STATEMENT OF DISBURSEMENTS BY BRANCHES

FROM APRIL 1, 1957 TO MARCH 31, 1962

## FISCAL YEAR ENDING

INCOME	FISCAL YEAR ENDING					
	Mar. 31/58	Mar. 31/59	Mar. 31/60	Mar. 31/61	Mar. 31/62	
1801 Minister's Office	17,187.76	16,230.52	18,956.45	17,615.97	\$	\$
1802 General Administration	182,811.87	214,224.29	230,605.60	275,253.87	19,197.74	
1803 Advisory Board & Committees	527.73	300,102.57	1,188.12	1,050.00	280,458.31	
1804 Technical Division	234,184.43	300,102.57	320,148.12	365,188.43	357.55	
1805 Research Division	89,531.47	92,889.76	102,959.07	119,072.43	124,904.81	
1806 Postage	16,757.16	19,328.37	25,703.29	—	—	
1815 Alberta Forest Service - Forest Administration Branch	—	—	54,213.85	104,568.16	89,797.21	
1816 Alberta Forest Service - Forest Management Branch	—	—	256,331.29	283,231.44	374,174.03	
1817 Alberta Forest Service - Rocky Mountain Research Station	568,249.05	624,732.32	769,221.17	865,920.77	958,053.13	
1819 Board	—	—	—	—	45,337.92	
1821 Alberta Forest Service - Forest Protection Branch	2,124,624.10	2,405,548.49	2,882,547.28	3,118,102.10	2,868,119.57	
1823 Forest & Prairie Fires Suppression	87,856.82	1,499,336.70	1,234,405.09	326,316.00	2,452,000.08	
1824 Alberta Forest Service - Forest Survey Branch	172,452.34	242,468.70	275,526.53	304,519.52	289,836.88	
1825 Alberta Forest Service - Aircraft Operations	36,584.76	192,506.87	217,817.06	341,489.57	272,509.74	
1826 Alberta Forest Service - Radio Branch	214,903.10	258,898.50	365,307.53	352,573.59	339,853.67	
1828 Training School	8,935.49	13,352.16	26,730.48	31,520.27	42,893.21	
1835 Fish & Wildlife Division	522,483.82	568,302.88	536,444.36	642,413.98	643,355.55	
1836 Destruction of Pests	23,569.33	18,907.05	6,103.63	9,836.73	8,689.78	
1837 Commercial Fisheries	515,868.93	530,483.17	150,886.65	163,822.45	156,232.93	
1845 Lands Division	226,319.75	360,865.21	565,710.99	646,625.45	671,787.16	
1846 Production Parks	31,424.22	419,107.04	419,107.04	646,322.00	646,891.10	
Printing, Stationery & Office Supplies (1920)	—	51,981.07	54,416.73	—	—	(Amalgamated with 1902)
SW 13/57-58 Setting up of summer camps for employment of men formerly employed in the coal mines in the Blairmore Area on Forestry Projects of the Eastern Rockies	49,990.46	—	—	—	—	
SW 11 & 13/58-59 Payment to settlers of former coal miners employed by the Eastern Rockies Forest Conservation Board.	—	35,991.09	—	—	—	
SW 69/58-59 Payment to settlers of the Wanham Project.	—	14,935.43	—	—	—	
SW 48/58-60 Contract for raising the ground level of the Selkirk River.	—	—	9,332.42	—	—	
SW 27/60-61 Watershed Research Activities of the Eastern Rockies Forest Conservation Board.	—	—	8,424.81	—	—	
1847 Payment to the Canmore Golf Association - SW 6/61-62.	—	—	—	184.30	—	
Total Income Account	\$5,144,301.97	\$7,461,254.83	\$8,531,591.76	\$8,603,266.74	\$10,637,901.01	3,800.00

CAPITAL						
1881	Aerial Photography & Forest Inventory Aircraft Patrol (1953)	Mar. 31/58 \$	Mar. 31/59 \$ (Amalgamated with 1923 Income)	Mar. 31/60 \$	Mar. 31/61 \$	Mar. 31/62 \$
	SW 71/57-58 Construction of Forest Access Roads and Trails, essential to the attainment of adequate fire protection.	68,932.30	70,427.01	—	14,296.01	27,748.61
	SW 72/57-58 Costs of implementing a program whereby sites will be cleared and picnic shelters built in Provincial Parks	35,803.46	—	—	—	—
	SW 2/58-59 Construction of Forest Access Roads and Trails	—	—	—	—	—
	SW 3/58-59 Development of tourist industry by implementing a program whereby sites will be cleared and picnic shelters built in Provincial Parks.	—	85,997.84	—	—	—
	SW 62/58-59 Winter works programs for the building of Access Roads and Trails in the forested areas of the Province.	—	23,981.39	—	—	—
	SW 63/58-59 Construction of camp grounds and picnic sites in Provincial Parks and the Eastern Rockies Forest Conservation Area.	—	176,813.85	—	—	—
	SW 3 & 12/59-60 Completion of current winter works program for construction of camp grounds and picnic areas in Provincial Parks and Eastern Rockies Forest Conservation Area.	—	81,509.73	—	—	—
	SW 4, 11, 13 & 45/59-60 Continuation of winter works program for the building of Access Roads and Trails in forested areas of the Province.	—	—	68,084.79	—	—
	SW 8/59-60 Payment to the Government of Canada in connection with administration and control of lands.	—	—	90,496.16	—	—
	SW 13 & 34/59-60 Completion of a bridge over the McLeod River and construction of a road from Nordegg North to Brazeau River.	—	—	33,642.42	—	—
	SW 39/59-60 Payment to the Government of Canada in consideration for lands and improvements thereon transferred to the Province of Alberta.	—	—	57,801.51	—	—
	SW 53/59-60 Camp ground and picnic sites in Provincial Parks, the Northern Alberta Forest Area and the Eastern Rockies Forest Conservation Area.	—	—	1,278.00	—	—
	SW 2, 12 & 51/60-61 To complete current winter work unemployment program undertaken by the Gov'ts of Alberta and Canada for construction of camp grounds and picnic sites in Provincial Parks and Eastern Rockies Forest Conservation Area.	—	—	113,617.15	—	—
		—	—	—	239,772.31	—

CAPITAL (continued)		Mar. 31/58	Mar. 31/59	Mar. 31/60	Mar. 31/61	Mar. 31/62
		\$	\$	\$	\$	\$
SW 45/60-61 Purchase of Lands from the Canadian National Railway.		—	—	—	—	—
SW 50, & 76/60-61 Building of Access Roads and Trails in forested areas of the Province to assist in relieving winter unemployment.		—	—	—	11,419.75	—
SW 60/60-61 To purchase land which is adjacent to the Slave Lake Airstrip of the Forest Division of the Department of Lands & Forests and to be used by the Crown Assets Disposal Corporation.		—	—	—	318,177.77	—
1882 Forestry Dominion - Provincial Access Roads Agreement & SW 47, 55/61-62.		—	—	—	2,674.50	—
1883 Construction of camp grounds & picnic sites in Provincial Parks - SW 2, 54/61-62.		—	—	—	—	998,154.64
1884 Purchase of land from Bar N Bar Ranching Company for community pasture - SW 65/61-62		—	—	—	—	259,178.76
		—	—	—	—	185,000.00
Total Capital Account		\$225,993.18	\$444,729.82	\$364,920.03	\$586,340.34	\$1,470,082.01



STATEMENT HALBERTA SCHOOL LAND SALES-REVENUE ACCOUNTFROM APRIL 1, 1961 to MARCH 31, 1962

	DEBITS	CREDITS
Arrears Interest as at March 31, 1961	\$28,655.90	———
Interest Charges	54,698.04	———
Interest Revenue	———	\$54,543.63
Interest Written-Off (Cancelled Sales)	———	864.40
Arrears Interest as at March 31, 1962	———	27,945.91
	\$83,353.94	\$83,353.94

## REGISTRATION DIVISION

Report of the Registrar

C. B. KENWAY

Each year it has been the custom to give the mail counts as an indication of the trend in departmental activity. Incoming mail for instance, has increased more or less steadily from 104,965 pieces in 1952 to 150,869 for the past year. The latter figure is a 3.2% increase over the previous year. Similarly, outgoing mail has increased from 174,388 pieces in 1952 to 268,361 for the past year. The latter figure is a 3.4% increase over the previous year. The total volume of incoming and outgoing mail is still far below the figures for the year 1944 to 1948 inclusive.

There are some interesting figures in connection with the cash and mail cage. Approximately 800 pounds of mail were received weekly, although mails of a 1000 pounds were not unusual. About twice this amount is shipped out weekly. For the past year an average of 606 letters were received daily, while a daily average of 1144 pieces were mailed. Approximately 28% of the incoming mail contained cash. This meant an average of 170 items of cash were entered each day. At busy times, cash items will vary from 400 to over 800 per day.

Fortunately, not all mail is received in the file room. However, in order to accommodate current mail, without increasing the number of filing cabinets, it is necessary to microfilm over four cabinetsful of files each month. A stage has been reached, nevertheless, where more cabinets will have to be purchased.

Microfilm references have been increasing to the point where many of the negatives were becoming worn and scratched. It was felt that before the condition developed further, positive prints should be made. This was done during February and March of 1962. The positive prints are now being used for reference, and the negatives are being preserved as security copies.

For the last eight months of the year a work measurement study in the Kardex section showed that 45,840 files were processed during this period, an average 5,730 files per month. When one considers the work involved, such as opening files, plotting in registers, indexing, dispositions, cancellations, transfers and repairing etc, it is a very creditable showing for three girls.

There were about the same number of entries in the township registers, less than 1% increase over the previous year. However, it is a far cry from the days when a quarter section had a single entry, invariably a homesteader, registered against it. In the oil-producing areas today, there may be from ten to twenty entries against a quarter section. A glance at a plan of a section of land in the Pembina area will illustrate the point. Wellsites, battery sites, flowline, pipelines, transmission lines and access roads carve the land into many bewildering patterns.

Less than three years ago, composite plans, of the installations in the oil-producing areas, were prepared as a record control. These plans were drawn to scale for one section of land, as shown in the accompanying illustration. They have been invaluable in the processing of

leases, and have saved needless hours in examining individual plans on file. A number of the oil companies have been buying copies of them for the same reason. Plans of over 2000 sections are now available.

Considerable time and effort has been devoted to emergency measures planning. Pressure of regular work, if it continues, will leave little time for this work in the future, without extra assistance.

It is a pleasure at this time to thank the staff for their cooperation and loyalty in carrying out their everyday duties, which at times have not been easy, in a spirit of cheerfulness and perseverance. Also, to know that this appreciation is extended by others in the various branches.

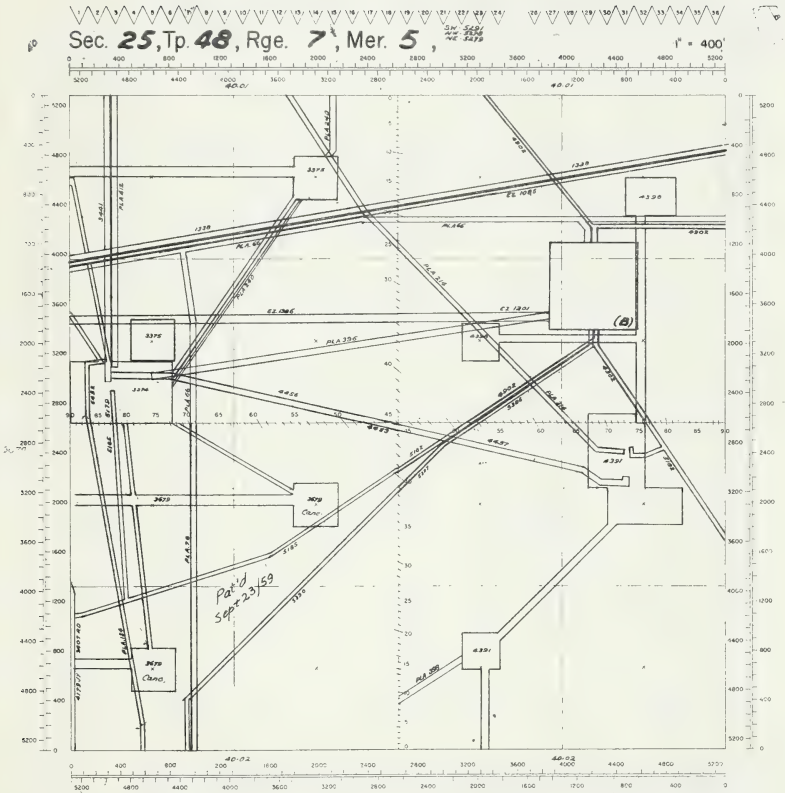
#### SUMMARY OF INCOMING AND OUTGOING MAIL BY NUMBER OF PIECES FOR THE PAST FIVE YEARS

Year	Incoming	Outgoing	Total
1957-58	138,339	223,685	362,024
1958-59	141,141	252,076	393,217
1959-60	138,002	240,401	378,403
1960-61	146,185	259,567	405,752
1961-62	150,869	268,361	419,230

#### A TWO-YEAR COMPARISON OF SOME OF THE PRINCIPAL RECORD ENTRIES

Item	1960-61	1961-62	Difference
Assignments registered	418	584	166
Notifications for patent	871	874	3
Timber berth and S. T. P. applications	287	256	-31
Homestead leases (civilian) entered	250	419	169
Homestead leases (civilian) cancelled	292	298	6
Homestead leases (veteran) entered	13	38	25
Homestead leases (veteran) cancelled	40	54	14
Homestead sales (civilian) entered	166	393	227
Homestead sales (civilian) cancelled	16	23	7
Homestead sales (veteran) entered	7	24	17
Homestead sales (veteran) cancelled	1	1	0
Licences of Occupation entered	111	102	-9
Licences of Occupation cancelled	75	95	20
Miscellaneous leases entered	141	201	60
Miscellaneous leases cancelled	174	203	29
Cultivation leases entered	74	53	-21

Item	1960-61	1961-62	Difference
Cultivation leases cancelled	142	69	-73
Easements entered	97	230	133
Easements cancelled	17	16	-1
Public land sales entered	277	268	-9
Public land sales cancelled	7	17	10
Purchase agreements entered	15	4	-11
Purchase agreements cancelled	11	1	-10
Road Allowance leases entered	169	171	2
Road Allowance leases cancelled	87	79	-8
Grazing leases entered	240	215	-25
Grazing leases cancelled	87	88	1
School land sales entered	209	128	-81
School land sales cancelled	7	9	2
School land cultivation leases entered	210	116	-94
School land cultivation leases cancelled	245	136	-109
Rights of entry entered	661	328	-333
Rights of entry cancelled	175	195	20
Mineral surface leases entered	216	309	93
Mineral surface leases cancelled	65	50	-15
Pipeline agreements entered	242	246	4
Pipeline agreements cancelled	0	2	2
Sand and gravel leases entered	61	51	-10
Sand and gravel leases cancelled	64	40	-24
Grazing permits entered	1,505	1,560	55
School land grazing permits entered	684	556	-128
	8,429	8,502	73







## PROVINCIAL PARKS ADMINISTRATION

Report of the Provincial Parks Commissioner

E. P. SHAVER

During the fiscal year under review, it has been observed, with great satisfaction, that the development of facilities in our parks has been most appreciatively received by the public. Attendance figures for the past year of 1,584,101 visitors represents an increase of 444,032 visitors over the previous year.

To provide the amenities necessary for the recreational requirements of the public, particular emphasis was placed on expanding and improving existing park facilities. Inspections were carried out on a number of proposed park areas and suitable lands were placed under reservation.

During the past year four Provincial Historical Sites were established, the name of one Provincial Park was amended and the areas of three parks increased by the addition of lands. These are:

FORT GEORGE PROVINCIAL HISTORICAL SITE - Established by Order in Council 697/61.

BUCKINGHAM HOUSE PROVINCIAL HISTORICAL SITE - Established by Order in Council 698/61.

STEPHENSON PROVINCIAL HISTORICAL SITE - Established by Order in Council 1431/61.

ATHABASCA LANDING PROVINCIAL HISTORICAL SITE - Established by Order in Council 1705/61.

DINOSAUR PROVINCIAL PARK - Changed from Steeveville Dinosaur Provincial Park by Order in Council 1928/61.

WOOLFORD PROVINCIAL PARK - Order in Council 696/61 increased area of park by 60.43 acres.

BEAUVAIS LAKE PROVINCIAL PARK - Order in Council 866/61 increased area of park by 80.10 acres.

BRAGG CREEK PROVINCIAL PARK - Order in Council 1355/61 increased area of park by 149.55 acres.

Amendments to the Provincial Parks Act were passed during the last session of the legislature to generally improve the means by which Provincial Parks and Provincial Historical Sites may be constituted. There are now 40 Provincial Parks established of which 36 are under development. In addition, 13 Provincial Historical Sites have also been established.

The Federal-Provincial Winter Work Program once again provided an opportunity to improve existing facilities as well as to provide new improvements. As in previous years the Federal Government reimbursed the Province for 50% of the expenditures made under this program.

The administrative duties of the Branch were carried out by a permanent staff of 19 and a part time caretaker staff of 32. Additional staff was also hired on wages to assist in the maintenances of the various parks.

The following is a brief summary of the main projects and activities carried out by the Branch during the fiscal year under review:

ASPEN BEACH PROVINCIAL PARK - Developments in this park consisted primarily of improvement to the picnic, camping and playground areas. Extensions to the electrical system and improvements to the access roads were also made.

In conjunction with the Federal-Provincial Winter Work Program additional sanitary facilities were provided, crushed gravel stockpiled and a bunkhouse trailer constructed to provide accommodation for employees.

BEAUVAIS LAKE PROVINCIAL PARK - Work in this park consisted of the installation of electrical service, the wiring of buildings and the gravelling of access roads. An additional 80.10 acres was purchased to provide better picnic and camping facilities. Equipment to combat fires was also purchased.

Under the Winter Work Program additional sanitary facilities were provided. Underbrushing of the park boundary and picnic areas was also carried out.

BIG HILL SPRINGS PROVINCIAL PARK - The extension of electrical service to the park, the wiring of buildings, the provision of an additional water supply and improvements to the playground area were the main projects undertaken during the past year.

BOW VALLEY PROVINCIAL PARK - Continuation of the developments commenced during the first year's operation were the main projects undertaken during the past year. Access roads were constructed and essential heavy equipment purchased.

Under the provisions of the Federal-Provincial Trans-Canada Highway Agreement, work was commenced on the main campground in this park.

The Winter Work Program provided an opportunity to continue underbrushing of the picnic and campground areas as well as access roads to the campsites. Crushed gravel was stockpiled and a bunkhouse trailer was constructed to accommodate employees.

CRIMSON LAKE PROVINCIAL PARK - Work in this park was confined primarily to maintenance of existing facilities. Electrical power was extended to serve additional facilities and an additional source of drinking water was provided. Crushed gravel was stockpiled for use on the access roads.

Under the Winter Work Program additional sanitary facilities were constructed, 1000 cords of firewood were cut for use in the park and for other parks and 5000 cubic yards of sand were spread on the beach area.

**CROSS LAKE PROVINCIAL PARK** - The major projects undertaken in this park were the installation of boat launching facilities, the construction of a fireguard and the provision of an additional source of drinking water.

**CYPRESS HILLS PROVINCIAL PARK** - Developments in this park during the past year continued to be extensive. Construction of new roads was continued, fireguards were maintained and gravelling of roads constructed during the past year was undertaken. The boat marina was enlarged to provide storage for 91 boats. New campgrounds were developed on Reesor Lake and improvements made to existing picnic and campground areas.

Under the Winter Work Program 8000 cubic yards of crushed gravel were stockpiled, 3 picnic shelters were constructed, additional sanitary facilities provided and underbrushing of the picnic and camping areas continued.

**DILLBERRY LAKE PROVINCIAL PARK** - Work in this park consisted primarily of maintenance to existing improvements. Additional playground equipment was provided and fire fighting equipment purchased.

Under the Winter Work Program the sanitary facilities were improved.

**DINOSAUR PROVINCIAL PARK** - The construction of these display buildings covering restored fossil skeletons, the construction of roads and parking areas and the restoration of fossils were the main projects carried out in this park during the past year. A survey covering the water and sewage disposal requirements of the park was also undertaken.

Under the Winter Work Program a trailer was constructed to provide accommodation for employees and a bridge was constructed over Little Sandhill Creek to provide access to new campground areas.

**ENTRANCE PROVINCIAL PARK** - The drilling of water wells, the construction of roads and the underbrushing of picnic and camping areas were the main projects carried out in this park. A tractor and other items of equipment required for the maintenance of the park were purchased as were several items of playground equipment.

Under the Winter Work Program a utility building was constructed. Barrier posts, rails and burl logs were cut for use in other parks.

**GARNER LAKE PROVINCIAL PARK** - Improvements in this park during the past year consisted primarily of spreading crushed gravel on access roads and in extending electrical service to park facilities.

Additional sanitary facilities, repairs to the caretakers residence and underbrushing of the picnic and camping areas were carried out under the Winter Work Program.

**GOOSEBERRY LAKE PROVINCIAL PARK** - Work in this park was limited to maintenance of existing improvements; additional playground equipment was installed.

Additional sanitary facilities were constructed under the Winter Work Program.

KINBROOK ISLAND PROVINCIAL PARK - Continuing work on the breakwater and improvements to the boat launching facilities were the main projects carried out in this park. Additional playground equipment was provided and materials were purchased for the irrigation system.

A picnic shelter and additional sanitary facilities were constructed under the Winter Work Program.

LAC CARDINAL PROVINCIAL PARK - Improvements in this park during the past year consisted primarily of additional equipment for the playground area and underbrushing of the picnic and campgrounds.

Additional underbrushing was carried out under the Winter Work Program as was the construction of sanitary facilities.

LITTLE BOW PROVINCIAL PARK - Development work in this park consisted primarily of improvements to the beach and boat launching areas.

A double garage was constructed under the Winter Work Program.

LITTLE FISH LAKE PROVINCIAL PARK - Improvements in park during the past year consisted of improvements to the boat launching site and water system.

A utility building was constructed under the Winter Work Program.

LONG LAKE PROVINCIAL PARK - Maintenance of the existing improvements was the major work carried out in this park during the past year.

Construction of additional sanitary facilities and underbrushing of picnic and camping areas were carried out under the Winter Work Program.

MA-ME-O BEACH PROVINCIAL PARK - Work in this park was confined to maintenance of existing improvements.

Additional sanitary facilities were constructed under the Winter Work Program.

MIQUELON LAKE PROVINCIAL PARK - Maintenance of existing facilities was the main work carried out during the past year.

Under the Winter Work Program a trailer was constructed to provide accommodation for employees, improvements were made to the water system, crushed gravel was stockpiled for the roads and parking areas, additional sanitary facilities were constructed and additional picnic and camping areas were underbrushed.

MOONSHINE LAKE PROVINCIAL PARK - The construction of a boat launching site and underbrushing of the picnic and camping areas were the main projects carried out in this park during the past year.

The construction of sanitary facilities, additional underbrushing and the construction of change houses were carried out under the Winter Work Program.

O'BRIEN PROVINCIAL PARK - The installation of playground equipment was the major project undertaken in this park during the past year.

Under the Winter Work Program the underbrushing of the picnic and camping areas continued.

PARK LAKE PROVINCIAL PARK - The asphalt surfacing of the main park roads, the gravelling of secondary roads and the installation of an irrigation system were the major projects carried out in this park.

Under the Winter Work Program two picnic shelters were constructed and renovations made to the caretaker's residence. The beach was sanded and improvements made to the boat launching site.

PEMBINA RIVER PROVINCIAL PARK - The extension of electrical service, the construction of roads and the drilling of a well for drinking water were the main projects undertaken in this park during the past year. Additional playground equipment was installed and underbrushing of the park was continued.

Under the Winter Work Program additional sanitary units were constructed, crushed gravel was stockpiled and additional underbrushing undertaken.

RED LODGE PROVINCIAL PARK - Work in this park was limited to improving existing facilities, and to the installation of playground equipment.

Under the Winter Work Program renovations were made to the caretaker's residence, additional sanitary units constructed and the park boundary underbrushed.

ROCHON SANDS PROVINCIAL PARK - Work in this park was confined to improving existing facilities.

Under the Winter Work Program underbrushing of the park was continued and additional sanitary facilities were constructed.

SASKATOON ISLAND PROVINCIAL PARK - Development work in this park consisted primarily of underbrushing new picnic and camping areas and gravelling of roads.

Underbrushing work was continued under the Winter Work Program.

TABER PROVINCIAL PARK - The maintenance of existing improvements and the gravelling of roads were the main projects undertaken in this park. Under the Winter Work Program additional sanitary facilities were constructed.

THE VERMILION PROVINCIAL PARK - The extension of electrical power, the installation of additional playground equipment and sanding of the beach were the main projects undertaken in this park during the past year.



Under the Winter Work Program sand was spread on the beach, crushed gravel was stockpiled and underbrushing of the park was continued.

THUNDER LAKE PROVINCIAL PARK - Development work in this park consisted of improvements to the picnic areas and access roads. A new source of drinking water was provided and additional playground equipment was also installed.

Under the Winter Work Program a utility building, two change houses and additional sanitary facilities were constructed.

WABAMUN LAKE PROVINCIAL PARK - Major construction projects in this park consisted of improvements to the beach, extension of boat launching ramp, construction of an addition to the park workshop, construction of a concession building and of a picnic shelter and improvements to the access roads and parking areas. Improvements were also made to the campgrounds and water system.

Under the Winter Work Program a picnic shelter, trailer and additional sanitary facilities were constructed. Parking barriers were erected and underbrushing was continued in the picnic and camping areas.

WILLIAMSON PROVINCIAL PARK - During the first year of operation for this park a picnic shelter, utility building, sanitary facilities and access roads were constructed.

Under the Winter Work Program a change house was constructed and the picnic and camping areas were underbrushed.

WILLOW CREEK PROVINCIAL PARK - The major work in this park consisted of providing a suitable supply of drinking water and improvements to park roads.

A picnic shelter and additional sanitary facilities were constructed under the Winter Work Program.

WINAGAMI LAKE PROVINCIAL PARK - Development work in this park consisted primarily of the construction of a fireguard, improvements to the water system and landscaping of the main beach and picnic area.

Under the Winter Work Program underbrushing of the park continued and additional sanitary facilities were constructed.

WOOLFORD PROVINCIAL PARK - Work in this park was confined to improving existing facilities and to supplying additional play equipment.

A picnic shelter and additional sanitary facilities were constructed under the Winter Work Program.

WRITING-ON-STONE PROVINCIAL PARK - The supplying of an additional source of drinking water was the main project undertaken in this park during the past year.

A picnic shelter and additional sanitary facilities were constructed under the Winter Work Program.



## GENERAL

Maintenance work on improvements and equipment was carried out in all parks.

## CONFERENCES

The Parks and Recreation Association Conference held in Edmonton from August 27th to 31st inclusive was attended by representatives of the branch. The Provincial Parks Commissioner chaired the session on "Federal and Provincial Parks Services".

The Provincial Parks Commissioner also attended "The Resources for Tomorrow Conference" held in Montreal, October 23rd to 28th inclusive.

The conference was both informative and interesting. One major point established and accepted was that of equal partnership in land use for Agriculture, Forestry and Recreation (Parks).

## APPRECIATION

The guidance, advice and interest shown by the Chairman and Members of the Provincial Parks Board in the development and operation of the Provincial Parks and Historical Sites has been of invaluable assistance to the branch.

The efficient and willing performance by the members of the branch in the administration, development and maintenance of the parks is most gratefully appreciated.



Vermilion Provincial Park



Bow Valley Provincial Park

The following is a summary of the expenditures for the fiscal year:

Amount appropriated for Provincial Park purposes - \$770,000.00

Expenditures for each park:

Park	Appropriation	General Trust	Winter Work Program
Administration	\$104,608.46	\$1,200.00	
Aspen Beach	\$17,769.24	\$3,995.37	\$10,313.84
Beauvais Lake	\$13,286.53	\$2,403.00	\$5,762.54
Big Hill Springs	\$6,383.83		\$1,770.39
Bow Valley	\$73,755.23		\$15,290.02
Bragg Creek	\$1,350.00	\$1,800.00	
Buckingham House		\$144.75	
Coronation Boundary Marker		\$15.00	
Crimson Lake	\$15,365.97	\$9,091.18	\$14,276.99
Cross Lake	\$6,572.14		\$1,016.44
Cypress Hills	\$70,911.06		\$28,721.19
Dillberry Lake	\$4,062.08		\$392.04
Dinosaur	\$22,486.02		\$487.16
Entrance	\$13,136.75		\$8,860.97
Fort George		\$25.00	
Fort White Earth		\$246.60	
Garner Lake	\$6,511.95		\$8,396.74
Gooseberry Lake	\$2,845.92		\$2,113.27
Kinbrook Island	\$8,791.77		\$2,493.33
Lac Cardinal	\$5,196.25		\$6,454.97
Little Bow	\$5,627.29		\$2,797.77
Little Fish Lake	\$1,670.16		\$1,544.91
Long Lake	\$13,045.73		\$10,850.09
Ma-Me-O Beach	\$6,045.28		
Markerville	\$51.68		
Miquelon Lake	\$6,693.57		\$10,632.80
Moonshine Lake	\$4,878.59		\$5,291.44
O'Brien	\$1,670.63		\$2,727.26
Park Lake	\$23,950.04		\$6,862.07
Pembina River	\$7,585.29		\$2,752.09
Red Lodge	\$4,431.42		\$4,754.68
Ribstone			\$475.00
Rochon Sands	\$5,287.59		\$3,404.81
Saskatoon Island	\$5,177.74		\$7,162.08
Taber	\$4,223.75		\$2,476.05
The Vermilion	\$8,703.61	\$2,500.09	\$9,571.87
Thunder Lake	\$5,427.83		\$1,827.60
Wabamun Lake	\$52,370.33	\$2,155.42	\$22,071.05
Williamson	\$7,207.10		\$933.99
Willow Creek	\$2,005.52		\$3,985.27
Winagami Lake	\$17,156.22		\$14,795.28
Woolford	\$2,017.73		\$578.76
Writing-on-Stone	\$4,736.87		\$4,311.45
Total	\$562,997.17	\$23,576.41	\$226,156.21
General Expenses:			
Salaries			\$85,883.93

PARK	Leases as of March 31, 1961.	Applications Outstanding as of March 31, 1962.	Leases Cancelled April 1, 1961 to March 31, 1962.	Assignments April 1, 1961 to March 31, 1962.	Leases Issued	Leases as of March 31, 1962.
BEAUVAIS LAKE	34	-	-	5	6	40
CRIMSON LAKE	90	-	-	4	-	90
CYPRESS HILLS	199	-	2	14	38	235
DILLBERRY LAKE	29	-	-	3	1	30
GOOSEBERRY LAKE	13	-	-	-	-	13
KINEROOK ISLAND	53	-	2	2	4	55
THE VERMILION	9	-	1	2	-	8
WINACAMI LAKE	23	-	5	1	4	22
	450	-	10	31	53	493

PROVINCIAL													
FOR YOUR PLEASURE & ENJOYMENT													
PRIMARY VALUES													
SCENIC	HISTORICAL	RECREATION	BOATING	FISHING	PLAYGROUNDS	RESTAURANTS	TENNIS	MOTEL	SEASONAL PARKING	YEAR ROUND	TOWN/SHOPS	BOAT RENTALS	
LEGEND													
FACILITIES PROVIDED													
P PERMITTED BUT NOT PROVIDED FOR													
C CARETAKER													
W WARDEN													
NEAREST CITIES OR TOWNS													
ASPEN BEACH	90 ACRES	•	X	X	X	X	X	P	X	C	X	BENTLEY LACOMBE	GULL LAKE
BEAUVAIS LAKE	596 ACRES	•	•	X	X	X	X	P	X	C	X	PINCHER CREEK	
BIG HILL SPRINGS	63 ACRES	•	•	X	X	X	X	P	X	C	X	COCHRANE	
BOW VALLEY	2384 ACRES	•	•	X	X	X	X	P	X	C	X	CALGARY	CANMORE
BRAGG CREEK	464 ACRES	•	•	X	X	X	X	P	X	C	X	EXSHAW	
GRIMSON LAKE	4602 ACRES	•	•	X	X	X	X	P	X	C	X	ROCKY MOUNTAIN HOUSE	
CROSS LAKE	960 ACRES	•	•	X	X	X	X	P	X	C	X	FAWCETT FLATBUSH	ELKWATER
CYPRESS HILLS	78 SQ MILES	•	•	X	X	X	X	P	X	C	X	MEDICINE HAT IRVINE	
DILBERRY LAKE	78 ACRES	•	•	X	X	X	X	P	X	C	X	CHAUVIN PROVOST	TILLEY
DINOSAUR	22072 ACRES	•	•	X	X	X	X	P	X	C	X	PATRICIA BROOKS	
ENTRANCE	6400 ACRES	•	•	X	X	X	X	P	X	C	X	HINTON ENTRANCE	
GARNER LAKE	1946 ACRES	•	•	X	X	X	X	P	X	C	X	SPEDDEN VILNA	
GOOSEBERRY LAKE	1405 ACRES	•	•	X	X	X	X	P	X	C	X	CONSORT	
HOMMY	16 ACRES	•	•	X	X	X	X	P	X	C	X	BEAVERFLOODE ALBRIGHT	
KINBROOK ISLAND	95 ACRES	•	•	X	X	X	X	P	X	C	X	BROOKS GRIMSHAW	BERWYN
LAC CARDINAL	270 ACRES	•	•	X	X	X	X	P	X	C	X	CHAMPION	
LITTLE BOW	261 ACRES	•	•	X	X	X	X	P	X	C	X	DRUMHELLER	
LITTLE FISH LAKE	151 ACRES	•	•	X	X	X	X	P	X	C	X	NEWBROOK	
LONG LAKE	2030 ACRES	•	•	X	X	X	X	P	X	C	X	WETASKIWIN MA-ME-O BEACH	KINGMAN
MA-ME-O BEACH	4 ACRES	•	•	X	X	X	X	P	X	C	X	CAMROSE HAY LAKES	
MIQUELON LAKE	160 ACRES	•	•	X	X	X	X	P	X	C	X	SPIRIT RIVER	
MOONSHINE LAKE	1922 ACRES	•	•	X	X	X	X	P	X	C	X	GRANDE PRAIRIE	
O'BRIEN	22 ACRES	•	•	X	X	X	X	P	X	C	X	LETHBRIDGE COALHURST	
PARK LAKE	184 ACRES	•	•	X	X	X	X	P	X	C	X	ENTWISTLE EVANSBURG	
PEMBINA RIVER	493 ACRES	•	•	X	X	X	X	P	X	C	X	BOWDEN	
RED LODGE	160 ACRES	•	•	X	X	X	X	P	X	C	X	ERKINE STETTLE	GRANDE PRAIRIE
ROCHON SANDS	360 ACRES	•	•	X	X	X	X	P	X	C	X	WEMBLEY TABER	
SASKATOON ISLAND	1175 ACRES	•	•	X	X	X	X	P	X	C	X	BARHEAD VERMILION	EDMONTON
TABER	127 ACRES	•	•	X	X	X	X	P	X	C	X	WABAMOUN VALLEYVIEW	
THUNDER LAKE	1194 ACRES	•	•	X	X	X	X	P	X	C	X	STAVELY Mc LENNAN	HIGH PRAIRIE
THE VERMILION	2000 ACRES	•	•	X	X	X	X	P	X	C	X	WOOLFORD CARDSTON	
WABAMUN LAKE	692 ACRES	•	•	X	X	X	X	P	X	C	X	MILK RIVER	
WILLIAMSON	45 ACRES	•	•	X	X	X	X	P	X	C	X		
WILLOW CREEK	76 ACRES	•	•	X	X	X	X	P	X	C	X		
WINAGAMI LAKE	2952 ACRES	•	•	X	X	X	X	P	X	C	X		
WOOLFORD	70 ACRES	•	•	X	X	X	X	P	X	C	X		
WRITING-ON-STONE	796 ACRES	•	•	X	X	X	X	P	X	C	X		

PROVINCIAL		HISTORICAL		SITES	
NAME	AREA	NEAREST TOWNS OR CITIES			
ATHABASCA LANDING	3 ACRES	ATHABASCA			
BUCKINGHAM HOUSE	6 ACRES	ELK POINT			
CORONATION BDY MARKER	25 ACRES	CASTOR			
EARLY MAN SITE	1 ACRE	FT. MACLEOD			
FORT DE L'ISLE	107 ACRES	MYRNAM ELK POINT			
FORT GEORGE	1 ACRE	ELK POINT			
FORT VERMILION	2 ACRES	MARWAYNE			
FORT VICTORIA	1 ACRE	PAKAN SMOKY LAKE			
FORT WHITE EARTH	5 ACRES	SMOKY LAKE			
FROG LAKE MASSACRE	1 ACRE	ST. PAUL FROG LAKE			
HAY LAKE TELEGRAPH STN.	0.89ACRES	HAY LAKES			
MASSACRE BUTTE	1 ACRE	LUNDBRECK COWLEY			
RIBSTONES	2 ACRES	VIKING KINSELLA			
STANDOFF	1 ACRES	STANDOFF FT. MACLEOD			
STEPHANSSON	12 ACRES	MARKERVILLE			
TWELVE FOOT DAVIS	2 ACRES	PEACE RIVER			
			Aug. 1962	Aerial	Surveys



## PERSONNEL

### Report of the Personnel Officer

A. C. BAKER

To assist in making the most effective use of its present resources and to provide a firm base for future expansion, the department embarked on the initial stages of a progressive personnel plan early in the fiscal year. The department Personnel Office has been completely reorganized and procedures have been adapted to conform to both the modern concept of personnel administration and to Data Processing Centre systems which were also initiated during the year.

To receive the support of supervisors throughout the department, a Supervisory Training Course was presented to all senior and intermediate supervisory personnel. This course, provided by the Public Service Commissioner's office, explained the role to be played by supervisors in the public service, details of organization, systems and procedures analysis and aspects of employee selection, promotion and training.

During the year a considerable number of requests for reclassification were examined and processed. The great majority, which had been outstanding for a considerable period, were brought to a satisfactory conclusion and it is considered that most inequalities in the department have been rectified. In addition, requests for review of pay scales assigned to certain classes peculiar to this department were considered and some adjustments made.

Recruitment procedures were examined and efforts have been made to reduce delays in selecting new personnel and to ensure that the most qualified applicants are accepted for employment. The Personnel Office played a greater part in examination and placement to assist branches in obtaining personnel suitable for future promotion.

In-service placement has also been improved to ensure that existing employees were considered for promotional opportunities. It is considered that the selection of qualified employees for promotion to more senior positions will go a long way towards creating a stable, efficient work force whose morale is high.

The Personnel Office also participated in the reorganization of the Lands Branch and the Fish and Wildlife Division and it is anticipated that both will derive benefits from changes made.

The staffing pattern of the department as of March 31, 1962 follows:

## 1. MINISTER'S OFFICE

- 1 Minister
- 1 Secretary
- 2

## 2. DEPUTY MINISTER'S OFFICE

- 1 Deputy Minister
- 1 Solicitor
- 1 Information Officer
- 1 Administrative Officer
- 4 Clerk-Stenographers
- 3 Clerk-Typists
- 1 Duplicating Equipment Operator
- 1 Stores Clerk
- 1 Clerk
- 14

## 3. ACCOUNTS BRANCH

- 3 Accountants
- 24 Clerks
- 5 Bookkeeping Machine Operators
- 3 Clerk-Stenographers
- 18 Clerk-Typists
- 2 Comptometer Operators
- 55

## 4. TECHNICAL DIVISION

- 2 Administrative Officers
- 2 Surveyors
- 5 Engineering Assistants
- 6 Land Plans Examiners
- 18 Photogrammetrists
- 4 Photoprinters
- 2 Duplicating Equipment Operators
- 1 Illustrator
- 4 Clerk-Stenographers
- 3 Clerk-Typists
- 1 Clerk
- 4 Draughtsmen
- 1 Damage Claims Investigator
- 53

## 5. REGISTRATION DIVISION

- 1 Administrative Officer
- 1 Stenographer
- 2 Draughtsmen
- 26 Clerks
- 1 Chauffeur
- 3 Clerk-Typists
- 34

## 6. ALBERTA FOREST SERVICE

## a. Administrative Office

- 1 Forestry Director
- 4 Clerk-Stenographers
- 4 Clerks
- 2 Clerk-Typists
- 11

## b. Forest Management Branch

- 1 Forestry Administrator
- 1 Asst. Forestry Administrator
- 1 Administrative Officer
- 1 Timber Scaling Supervisor
- 4 Foresters
- 5 Timber Auditors
- 9 Clerks
- 8 Clerk-Stenographers
- 1 Conservation Officer
- 31

## c. Rocky Mountains Forest Reserve

## Administrative Office, Calgary

- 1 Clerk
- 1 Clerk-Typist
- 1 Public Lands Appraiser I
- 1 Maintenance Worker
- 1 Road Foreman
- 2 Automotive Mechanics
- 3 Automotive Equipment Operators
- 10

## Crowsnest Forest

- 1 Forest Division Superintendent
- 1 Asst. Forest Division Supt.
- 8 Conservation Officers
- 1 Clerk
- 1 Lookout (Year round)
- 1 Forester
- 1 Automotive Mechanic
- 4 Asst. Conservation Officers
- 4 Lookouts (Seasonal)
- 22

## Bow River Forest

- 1 Forest Division Superintendent
- 1 Asst. Forest Division Supt.
- 8 Conservation Officers
- 1 Clerk
- 1 Forester
- 1 Lookout (Year round)
- 1 Stockkeeper
- 1 Clerk-Stenographer
- 1 Clerk-Typist
- 1 Automotive Mechanic
- 9 Asst. Conservation Officers
- 8 Lookouts (Seasonal)
- 34

## Clearwater Forest

- 1 Forest Division Superintendent
- 1 Asst. Forest Division Supt.
- 2 Clerks
- 6 Conservation Officers
- 6 Asst. Conservation Officers
- 1 Radio Operator
- 1 Forester
- 1 Automotive Mechanic
- 1 Lookout (Year round)
- 1 Clerk-Typist
- 7 Lookouts (Seasonal)
- 28

## d. FOREST PROTECTION BRANCH

- 1 Forestry Administrator
- 2 Asst. Forestry Administrators
- 1 Maintenance and Construction Supervisor
- 1 Maintenance Worker
- 2 Aircraft Dispatchers
- 15 Clerks
- 1 Stockkeeper
- 8 Clerk-Stenographers
- 1 Sign painter and Designer
- 6 Forest Division Superintendents
- 9 Asst. Forest Division Superintendents
- 1 Electrical Supervisor
- 6 Foresters
- 1 Plumber Supervisor
- 6 Automotive Mechanics
- 1 Timber Scaler
- 94 Conservation Officers
- 45 Asst. Conservation Officers
- 6 Senior Lookouts (Year round)
- 82 - Lookout Men (Seasonal)

d. FOREST PROTECTION BRANCH  
(Con'd)

14 Lookouts (Year round)  
6 Radio Operators  
2 Clerk-Typists  
311

## e. FOREST SURVEYS BRANCH

1 Forestry Administrator  
1 Asst. Forestry Administrator  
8 Foresters  
21 Photogrammetrists  
2 Clerks  
1 Clerk-Stenographer  
1 Clerk-Typist  
1 Stockkeeper  
36

## f. RADIO BRANCH

1 Communications Superintendent  
2 Asst. Communications Supt.  
16 Communications Technicians  
5 Radio Operators  
1 Stores Clerk  
1 Stockkeeper  
2 Clerk-Typists  
1 Clerk-Stenographer  
29

## g. FORESTRY TRAINING SCHOOL

3 Forestry Training Officers  
1 Clerk  
4

## 7. FISH AND WILDLIFE DIVISION

1 Fish and Wildlife Director  
2 Fish and Wildlife Administrators  
10 Fish and Wildlife Biologists  
42 Conservation Officers  
19 Asst. Conservation Officers  
2 Clerks  
2 Game Hatchery Superintendents  
15 Clerk-Stenographers  
6 Game Hatchery Attendants  
15 Clerk-Typists  
1 Laboratory Technician  
115

## 8. PUBLIC LANDS DIVISION

1 Public Lands Director  
1 Asst. Director of Lands  
2 Public Lands Use Specialists  
17 Public Lands Appraisers  
5 Administrative Officers  
26 Clerks  
8 Clerk-Stenographers  
27 Clerk-Typists  
2 Farm Workers  
1 Agriculturist  
90

## 9. PROVINCIAL PARKS

1 Parks Commissioner  
1 Parks Planner  
9 Parks Managers  
4 Clerks  
2 Clerk-Stenographers  
1 Clerk-Typist  
2 Maintenance Workers  
20

## OFFICE OF STATIONERY AND SUPPLIES

Many changes have occurred within the past year in this office; these include purchase of a new duplicating machine, which has greatly increased printing capacity, a graphotype machine to produce addressograph plates and a larger addressograph machine which has doubled the speed and efficiency of mailing the many magazines, timber sales, etc. handled through this office. Changes have also taken place within the office structure itself making the overall operation far more efficient.

During the year under review the following amount of mail and express was handled by the office. A comparison with the year previous is made.

Mail and Express	1960-61	1961-62
Express parcels	526	543
Registered mail	4,990	5,221
Parcels mailed	2,979	3,620
Pamphlets	6,364	5,884
Parcels by bus	20	32
Magazines (one issue missed)	42,550	39,100
Letters	284	129
Parcels by messenger	253	329

Printing volume for the past two years is compared below.

	1960-61	1961-62
No. of masters cut	2,787	2,564
No. of sheets run off	911,471	954,374
Printing material transmitted to the Queen's Printer through this office (forms, etc.)	5,455,250	6,323,190

The following game tags, regulations and licences were forwarded from this office during the past year:

Big game licences and regulations	78,205
Big game tags	78,205
Bird game licences and regulations	138,500
Angling permits and regulations	173,900





